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Designed to improve all Classes interested in Soil Culture

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March.

The eighth, no less the ninth, with favoring skies,
Speeds, of the increasing month, each rustic enterprize;
And on the eleventh let thy flocks be shorn,
And on the twelfth be reaped thy laughing corn.
On the thirteenth forbear to sow thy grain;
But then the plant shall not be set in vain.
The sixteenth profitless to plants is deemed,
Auspicious to the birth of men esteemed;
But to the virgin shall unprosperous prove
Then born to light, or joined in wedded love.

HESIOD'S DAYS.

We are accustomed to look upon these old omens of classic days as relics of a decayed superstition. Hesiod does but record the popular faith of his times, in these prophetic signs. Every day in the month had its good or ill omen, and date had much more to do with the success or failure of any enterprize, than any other circumstance. Events were determined in the moon, rather than on earth, and human sagacity had its legitimate field of exercise in watching the moon for a good dinner, rather than the pot in which it was boiling. If the meat was killed and the cabbage sowed in the right phase of the moon, something worth eating might be expected; but if the *pater-familias* has been careless in these respects, he might count upon very poor pot luck. Certain days were perilous, and a man had better lie still than to attempt any labor.

> "Beware the fifth, with horror fraught and woe:
> 'Tis said the furies walk their round below,
> Avenging the dread oath; whose awful birth
> From discord rose, to scourge the perjured earth."

We frequently boast of our own as an enlightened age, and of the light of the nineteenth century as something particularly luminous. We look back with pity upon the superstitions of the Greeks, and yet if we studied the popular mind among us, we should probably find it about as much influenced by superstition as it was in the days of Hesiod and Homer. Indeed, some of their signs and omens have come down, in unbroken line of descent, to our own times. If one could gather up all these superstitious signs, as they are now found in the homes of the laboring classes, they would make a large volume. Many of them are of Grecian and Roman origin, while more still come down from the days of the Druids. Some were imported from Germany, and Ireland, and have found new life by our firesides.

The influence of the moon upon the weather is fully believed in, probably, by the large majority of our population. If the weather is foul, no change is anticipated until the moon quarters. The new moon is particularly efficacious in bringing changes. This luminary also foreshadows the character of the weather by the angle at which its horns make their appearance in reference to the horizon. If the crescent holds water like a bowl—then look out for dry times. But if the crescent dips, so as to let the water out, look out for foul weather and floods! The Almanac makers are supposed to be on particularly good terms with the moon, and to have got all the secrets out of her, for the year ahead. The prognostics of snow, rain, wind, thunder and lightning, found in these household annuals, are by some people still received with as undoubting faith as the articles of the creed. It matters not that the lightning or the hot term is but a week too early or too late in July, the Almanac is none the less a veritable prophet.

So also particular days in the month or week are supposed to have a controlling influence over the subsequent days. When the first Sunday in the month is rainy, rain will fall on all the following Sabbaths. The last Friday in each month is called the Almanac day for the next month. If clear, cloudy, rainy or windy, it determines the character of the succeeding month. The twelve days that follow Christmas, are also prophetic of the coming months of the year. If the first is clear and cold, January will have like weather. We have seen an Almanac made out in due form, following this guide. The indices were twelve circles over the kitchen fire place, in chalk marks. If the day was clear, the circle was left unspotted. If rainy and cloudy, the circle was filled up with chalk to the extent to which the rain prevailed. This stood till the next Christmas, when it was rubbed out to make room for another. This made a very summary guide to the weather, and just as reliable as any thing the astronomer could give us.

But the moon has also a great influence over vegetable and animal life. Many a man, intelligent in other things, will watch the phase of the moon to sow his onions this Spring. If the old of the moon ends with the last day of March—the sowing will be put off three weeks or more till the old of the moon in April. The seed would not sprout well, and they would all run to tops, unless an old moon shone on the seed time. So in sowing the later crops, this luminary must be consulted in order to have good luck. Beans, peas, squashes and cucumbers planted in the new moon, run to vines with inevitable certainty. Its influence is quite as powerful upon animal life. That your pork may swell in the pot, always butcher in the increase of the moon. If this be done after the full, there will be a collapse in the salt junk, no matter how much corn and meal may have been put into the cellular tissue!

The sun also has a mysterious influence over the animal functions, and its place in the signs of the zodiac must be studied, to fix the time of successful breeding and yeaning. The sun in a certain sign, makes the altering of males a success, while in another it brings peril and death. The weather and care of the animal under treatment are supposed to be matters of secondary importance.

The superstition in regard to Friday is as widespread as the Christian religion, and is undoubtedly owing to church traditions in the dark ages. From the reputed death of Christ on Friday it is supposed that that day is tinged with a melancholy hue, for all coming time. Multitudes of intelligent people never leave home or begin any new enterprize on this day. All accidents and evils come to them on Friday. Sailors, universally, are influenced by this superstition. To break down this belief, the ship owners in one of our seaports laid the keel of a vessel on Friday, launched it on Friday, named it Friday, and had her sail on Friday. As she had a competent captain and crew, she proved to be a very fortunate vessel, notwithstanding the tradition.

It may be thought that these and kindred superstitions are harmless, but as they stand in the place of truth, they must always work evil to the mind that receives them. The true faith for the farmer and for every man is, that he is the maker of his own fortune, and the maker of his own destiny. If he prepare the soil well, and sow his crops seasonably, he will secure good harvests without reference to the phases of the moon. If he is careless of these points, it is lunacy to expect that the moon will save him from loss. If he fatten his beef and pork on corn meal, he need never fear the influence of the moon upon his *corned* meats. They will come to the table plump and swollen, showing the power of the meal barrel much more distinctly than the power of the moon. The whole tendency of these superstitions is in favor of routine farming. There is little occasion for investigation and forethought, where the moon and the Almanac rule all farm operations. The teachings of science and of experience can come in to mold our husbandry, only as these miserable superstitions are driven out. But their domain is already broken. The light of a better day is shining in upon the dark regions of superstition. Men and women are learning to perform their labors at the best season and in the best manner, regardless of any *imaginary* Lunar or Solar influence.

Calendar of Operations for March 1859.

[We note down sundry kinds of work to be done during the month, not so much to afford instruction to practical men, as to call to mind the various operations to be attended to. A glance over a table like this will often suggest some piece of work that might otherwise be forgotten or neglected. Our remarks are more especially adapted to the latitudes of 38° to 45°; but will be equally applicable to points further North and South by making due allowance for each degree of latitude, that is, earlier for the South, later for the North.

EXPLANATIONS.—*f* indicates the *first*; *m* the *middle*; and *l* the *last* of the month.—Doubling the letters thus: *ff*, or *mm*, or *ll*, gives particular emphasis to the period indicated.—Two letters placed together, as *fm* or *ml*, signifies that the work may be done in either or in both periods indicated; thus, work marked *fm*. indicates that it is to be attended to from the *first* to the *middle* of the month.]

Farm.

March brings much appropriate work, chiefly of preparation, yet important, and enough to break the monotony of the partial rest of previous months. As the careful bird provides her nest for the little fledglings she hopes will ere long employ her care, so the tiller of the soil should have every thing in readiness to receive and guard the tender offspring of the fields, which the advancing season will soon bring, to demand his supervision.—But let not too great eagerness for an early start lead to preparation of the soil by plowing before it would be a benefit. Many a field has remained "lumpy" through the summer from having a clayey soil turned up while wet. A *brickyard* is not a good place in which to grow crops. Nor are those plants healthy, which vegetate in a soil barely warm enough to start them, with an atmosphere but little removed from the freezing point to welcome their first appearance. In farming, as in other things, "haste sometimes makes waste." It will be found that deeply worked, underdrained soils are both warmer and dryer, than shallow, undrained lands.

Cattle—Continue the directions of last month, giving plenty of feed, but wasting none. Place coarse fodder in racks in the yards, rather than on the ground to be trodden under foot. Let no animal fall away in flesh, though Winter is nearly over. Put working teams in good trim for heavy labors, and train steers to the yoke. Look well to cows about coming in, and provide suitable stalls for them at night. Keep the straw-cutter in use, and make judicious drafts upon the root bin. Let grain be ground or cooked before feeding, or much of its value is lost

Cellars—Keep sweet and clean, removing all garbage and decaying vegetables. Sort over fruit, potatoes, etc. See that a good supply of all kinds of vegetables is preserved for seed.

Clover—Sow, m, l. A light snow is beneficial to sow upon, both showing the breadths and carrying the seed into the soil as it melts away. Scatter in the morning upon a snow which will melt before night. Use from 6 to 12 quarts of seed to the acre. Usually about 8 quarts is sufficient.

Draining—Commence early on lands dry enough to dig. A subsoil plow will greatly assist in loosening the soil in the ditches. A cross drain at the head of a piece of land will sometimes cut off the flow from above, and render few drains necessary upon the piece, or field itself.

Fencing should be put up early, as soon as the frost will permit. Hedges may be planted, m, l, in many localities. Split rails, prepare posts, and make gates during stormy weather.

Forests—Remember they are yearly growing more valuable. Preserve the small growth, and transplant a few locusts, chestnuts, etc., upon land which is now useless.

Grain—Have a supply of choice quality in readiness for Spring sowing. Fields may be sown m, l, at the South.

Harrow out the corn roots of last year's crop as soon as frost will permit. It can be often done to advantage when only a few inches of the surface soil is thawed.

Hedge rows and shrubby spots in the meadows may now be grubbed up to advantage. They should not be allowed to disfigure the farm, draw nourishment from the soil, and afford harbors for vermin.

Hogs should be kept at work rooting over muck, leaves, or even sawdust in the yards and pens. An increase of stock ought soon to be expected. Give breeding sows charcoal and a little animal food occasionally. If inclined to destroy their pigs, make them drunk with liquor.

Horse and Mule Teams—Harden with suitable food and appropriate labor for the heavy work approaching. Cut feed with a few roots is better than constant dry food.

Ice Houses are filled in some localities, and only partially so in others. See that a good stock is secured before it is too late. Cover with sawdust and straw.

Laborers—Engage, ff, if not already done as advised on page 36 of the February *Agriculturist*.

Manures—Cart to the lots where they are to be applied; dump in large heaps and cover with muck or plaster Keep the manufactories at work, from the horse and cow stables to the hog pens, privies and hen roosts. A little time spent among these daily, adding muck, house slops, etc., and throwing into heaps under cover will pay a good interest in the next corn crop.

Map of the Farm—Make, or rather have the younger members of the family do it, for a drawing exercise. It may be drawn to a scale, and all of your proposed season's work indicated upon it.

Meadows or grain fields should not be trampled over or gnawed down at this season. Open ditches to carry away standing water.

Plowing will be in order during the latter part of the month in many localities. For most crops it is not enough that the land was plowed in the Fall; go over it again, using the subsoiler where practicable.

Potatoes should be in readiness for planting. Read articles on another page relative to the best varieties for market. The planting season is at hand in the southern States.

Poultry—Save eggs, m, l, for setting early. A few may be set, l, this month. Give freely of chopped meat, pounded oyster shells, boiled potatoes, raw cabbage, with some grain, and expect an abundant supply of eggs, if in addition they have warm quarters with gravel and ashes to scratch in.

Salt should be given to stock of all kinds once a week. Sedge or salt hay fed out occasionally answers the same purpose.

Sheep will perhaps be dropping their lambs during the latter part of the month. Provide warm quarters for them. Feed roots or grain to those with lamb, and keep separate from other stock. See article "How to raise every live-born lamb," in this number.

Sugar Maples may be tapped, f to m. See chapters elsewhere, both in this and the former number.

Tools for Spring work are presumed to be in good repair, or new ones provided as necessary.

Wood—Take another look at the pile, and see if there is sufficient to go through the year. If not, add a little, ff.

Orchard and Nursery.

As the nurseryman's *harvest* time is now at hand, there will be no lack of employment in preparing to fill the orders which have accumulated, and which are, or should be now pouring in.

Nor need the orchardist be idle. Unless all the moss and rough bark have been scraped from both apple and pear trees, attend to them at once. Many embryo insects will be destroyed at the same time.

Planting can also be done in many localities, and the sooner the better after the soil is in working order; that is, free from frost, and dry.

Apple Trees—Remove rough bark, moss and scale from orchard trees. Graft natural or poor fruit as directed below. Plant standards in the orchard and along lanes, avenues, about buildings, etc.

Cherries, Peaches and Plums—Set out for orchard culture, m, l, or as soon as frost will permit. Cherry trees start early in Spring and require early planting to succeed well. See if there are not vacant spots about the house or yards where a few trees may be both ornamental and useful.

Evergreen Trees—It is better to leave transplanting these until May. They *can* be moved now if done with care.

Grafting—Begin, ll, on those kinds which start first—usually the cherry. Apple and most other fruit trees succeed best in this latitude, earlier at the south.

Hedge Plants—Plant seeds and set seedlings in nursery rows, m, l.

Insects—Allow no trees to go from the nursery covered with scale. It will soon injure a nurseryman's reputation. Neither should they be left to suck out the life blood of the young orchard. They are perfect vampires and should be extinguished at once by soft soap or potash and water. Apply with a brush or rag tied to a stick.

Manures—Provide a full supply to use in both orchard and nursery. Make a compost of manure and muck and mix with soil for standard trees. A top dressing of lime or ashes will benefit the old orchard, also spreading stable manure liberally about the trunks.

Mice-girdled Trees—Bank up with earth, or better, cover with grafting clay or cement to exclude the air.

Pack with moss, trees that are to go far, covering with straw as shown on page 117 of last volume.

Pear Trees—Plant standards, m, l. A few dwarfs of proved kinds may be set in the garden—very few will suffice. Many varieties come into bearing young on their own roots, and are preferable. Don't neglect the Bartletts.

Planting seedlings and stocks should be followed up before the hurried season comes on.

Plums—Cut away any black warts found on the branches. Plant trees, ll.

Pruning—We prefer omitting this operation till midsummer for reasons previously set forth, though small twigs may be removed.

Seeds or Pits—Plant, ff, m, apple, pear, quince, cherry, peach, plum, walnut and chestnut seeds, or pits which were put in boxes last Fall. Also put in, m, l, evergreen tree seeds, and the various deciduous kinds, such as locust, maple, birch, etc.

Scions—The cutting of these should be attended to, ff, if more are wanted. Examine those cut heretofore to see that they are neither too dry or too moist.

Stocks budded last season—Cut off the head two or three inches above the bud, where the latter has taken.

Taking up Trees—Do it carefully, preserving as many of the roots and fibers as possible. Keep the roots from the sun.

Trench or subsoil new grounds, ll, both for orchard and nursery. If inclined to moisture put in drain tile.

Kitchen and Fruit Garden.

In the northern States and the Canadas the weather admits of little active work, save preparing manures, and arranging for the approaching Spring. Our directions of last month are mainly applicable to such latitutes for the present month. In the middle States Spring work is in order, and manuring, plowing, spading, and planting are going on according to the calendar below, while our southern neighbors are hoeing, weeding, and thinning the crops we are just planting.

For family use, especially during Winter, quick grown vegetables are much to be preferred. To produce such, do not sow until the ground is both *warm* and *dry*. Sow a portion for early use, as soon as the season will permit, and put in the balance later.

Artichokes—Dress old beds and plant new, m, ll.

Asparagus—Uncover beds, ll, and fork in manure, unless the nights continue frosty. New beds may be made at the same time, both from roots and seed.

Blackberries—Plant canes or roots of New-Rochelle, High Bush, or some other improved variety.

Borecole and Kale—Sow, ll, where the ground will permit.

Cabbages and Cauliflowers—Sow in hot-beds, ff, m, and in the open ground, ll. Set out stumps and heads for seed, ll.

Caraway—Sow seed, ll.

Celery—Sow in hot beds, m, l.

Cold Frames—Watch them more closely and air freely, as warmer weather approaches. The sash should be removed every day, unless the weather is freezing. Sow cabbages, lettuce, radishes, etc., to take the place of plants soon to be set out.

Compost—Prepare a supply for hot-beds, ff, if it is not now in readiness, and have a good quantity for general use.

Cress—Sow, ll, in open ground.

Currants and Gooseberries—Put in cuttings, and set out rooted plants, m, ll. If cuttings have not been taken off, attend to it at once, ff—it will soon be too late.

Drain, f, m, soils which incline to moisture. The market gardener will find this a great advantage, enabling him to work his ground much earlier. It is both warmth and dryness to the soil.

Egg Plants—Sow in hot-beds, m, l.

Fences—Construct or repair, making them poultry proof, unless fowls are kept in their appropriate places.

Fruit Trees—Plant along borders, ll. A few selected kinds of dwarf pears, peaches, cherries, quinces, and plums may be planted exclusively as a fruit garden, among which raspberries or blackberries may be grown with advantage, provided the ground is thoroughly manured.

Grapes—Plant both roots and cuttings, ll. Do not prune at this season. Uncover any buried vines, ll, if the weather appears settled and mild. Fork in a good dressing of manure about the roots. See "Profits of a Single Vine" on a subsequent page.

Herbs—Divide and reset roots, m, ll, sowing seed at the same time.

Hops—Plant roots, ll, providing poles for, ff, m.

Horse-radish—Divide and replant, m, l.

Hot Beds—Make ff, m, as per full directions elsewhere given. Give air in mild weather to beds previously planted.

Leeks—Sow, ll.

Lettuce—Sow, f, m, in hot-beds, and, ll, in open ground, scattering seeds in the cold frames at the same time.

Manures—Heavy manuring and deep plowing or trenching are the secrets of success with market gardeners.

Mustard—Sow, m, l.

Onions—Read "Prize article" in the present *Agriculturist*.

Parsley—Sow, ll.

Parsneps—Dig as wanted for use or market. A few may be left or set out for seed, ll.

Peas—Sow on warm borders, ll, scalding in hot water previously, to destroy the weevil or bug. Provide brush, ff, m.

Plow, subsoil, and trench garden soils, ll, if dry and free of frost.

Potatoes—Plant early varieties, ll, covering pretty deep to protect from frost. A few may be sprouted by putting in boxes, and burying in the manure heap.

Radishes—Sow at intervals, in hot-beds, ff, m, l; and, ll, in the open ground.

Raspberries—Uncover buried canes, ll, if the weather is settled. Stake up at once and head back to four or five feet in hight.

Rhubarb—Uncover protected roots, ll, and spade or fork in a good dressing of manure. Set out new plants on well prepared and rich soil, l.

Salsafy—Dig as wanted for use or market. Save some of the best roots for seed.

Seeds—Procure and test at once. In milder latitudes set out roots, etc., for seed, ll. See directions on page 51, last number relative to starting early.

Spinach—Uncover Fall plants and sow seed, ll. Thin out for use.

Strawberries—Rake off the Winter covering, ll, top-dress with fine, well rotted manure, hoeing it in.

Sweet Potatoes—Plant in hot-beds, m, l, to obtain sets for planting out.

Tools of the most approved kinds are supposed to be in working order. Try the *spade fork* instead of the blade spade for digging.

Tomatoes—Sow in hot-beds, f, m, and in open ground, ll.

Trellises and Arbors—See that the old are repaired and new ones built, before planting comes on.

Trench garden soils, ll, if warm and dry.

Turnips—Sow, ll, in open grounds for early use. If to be forced, sow in hot-beds, m, l.

Winter Cherries (*Physalis*)—Sow, f, m, in hot-beds, and, ll, in open ground. The Alkekengi will rarely ripen without forcing.

Flower Garden and Lawn.

An early or backward Spring will materially vary the labors of "embellishing the home." Planting can sometimes be done during the latter part of March in this latitude, while at other seasons it must be delayed until the middle of April, or later. Some things however, can always be done by way of preparation, such as clearing away rubbish, renewing gravel walks, and where the season promises continued mild weather, the tender shrubs may be released from their protection of straw, and the bulbs and other roots uncovered. The borders may also be prepared and some of the hardy annuals sown, ll, such as mignonette, portulaccas, coreopsis, petunias, etc. Other varieties may be sown, f, m, in a hot-bed.

Biennial and Perennial Roots—Divide and reset, ll.

Box and Grass Edgings—Plant and trim, ll, renewing any defective places.

Bulbs—If any have been kept out of ground, plant them, ff, if the ground admits of working.

Carnations, Pinks, and Daisies—Admit air to those in frames or pits thus hardening them for planting out.

Drain heavy and wet soils as recommended under Kitchen Garden.

Gravel—Procure a supply and replenish old, and make new walks. Let it be pretty coarse.

Hedges—Set out deciduous, ll, if the ground is in working order. Buckthorn or privet will serve as a good protection, while altheas make a fine screen.

Honeysuckles and other Vines—Prune, m, l, and arrange upon lattice work or trellises, ll. Plant cuttings or roots at the same time.

Hot-Beds—Make, ff, for propagating cuttings and sowing annuals for early flowering.

Labels, Stakes, Dahlia poles, etc.—Provide what are needed, ff, m.

Lawn—Rake over, ll, to remove the accumulation of leaves and decayed grass. Spread over a dressing of bone manure, plaster, ashes, guano, or fine barnyard manure. Replace bare spots with turf or scatter on seed, pressing down with a heavy roller.

New Grounds—Lay out and grade, m, l, according to previously matured plans. Read hints on "Planning the Garden," page 84.

Ornamental Shade Trees—Plant deciduous, ll, if the ground is in working order.

Plow lawn, ll, for early planting, manuring heavily.

Roses—Plant cuttings and roots, ll. Prune and regulate pillar and climbing varieties

Shrubs—Uncover, ll, those which were strawed up or otherwise protected, if the weather appears settled; if not, leave till next month.

Transplanting of trees, shrubs, flowers, etc., may be done, ll, or earlier where Spring has fairly set in

Green House.

Fire heat may still be needed if the weather continues cold. Towards the end of the month it may be nearly dispensed with, if the houses be closed early in the afternoon. Abundance of air will be needed as the plants attain a more vigorous growth. It is also necessary to harden off the plants.

Bedding Plants—Have a stock of verbenas, petunias, pansies, daisies, etc., now hardening for out-door planting.

Cleanse plants, pots, tubs and houses from dead leaves, moss, weeds, etc., to keep everything sweet and clean. Wash the leaves and syringe the foliage.

Insects still require looking after or they will increase in numbers.

Oranges, Lemons, Oleanders, Myrtles, etc.—Examine, cutting to a good shaped head, and clearing tubs from weeds, moss, etc. Repot and dress those requiring more room and a richer soil.

Pelargoniums—Pick off decaying leaves and cut away any branches showing mold. Give fresh supplies of pure air and more water as they begin to bloom.

Seeds—Sow, m, l, for early out-door planting.

Water—Give moderate supplies to succulents, and more frequent applications to woody plants now in a fair stage of growth.

Hot House and Conservatory.

These still require much care through the changeable weather of March. A warm sunny day is often followed by a frosty night, with high chilling winds, making it necessary to watch the furnaces carefully and perhaps cover the glass with shutters at night, or during snow storms. The various houses or rooms will present a different appearance and require different treatment according to the collections they contain and the amount of forcing they have received. A house devoted exclusively to Camellias will require different care from one having Camellias interspersed with Epacris, Heaths, Cactuses, Pelargoniums, Bignonias, Cissus, Fuchsias, Gloxinias, Lilliums, etc., etc., which are occasionally met with in the same collection. We can only give *general* directions, observing that in every and all departments, neatness and order should be preserved and the whole made as attractive as possible, especially at this season when an abundance of bloom invites frequent visitors.

Abutilons are easily managed and succeed in almost any collection. Give moderate waterings, sufficient room, and pinch to a well shaped head.

Acacias should show a fine bloom. Water lightly and expose in an airy situation.

Annuals—Pot off those sown last month and sow anew if a larger stock is needed.

Azalias are passing out of bloom. Head back the straggling growth.

Bedding Plants—Increase the stock, unless sufficiently large, by putting in cuttings of the varieties recommended last month. Place established plants in frames, m, l, for hardening off.

Bulbs—Bring forward from the Green-House or other cool place for a succession of bloom. Change the water in glasses twice a week. Those done blooming may be set away to dry off.

Calceolarias—Shift plants requiring more room to larger sized pots, watering freely. Flowering plants should now show a fine bloom.

Camellias are still among the most attractive flowers of the house where a fine collection is in full bloom. They require only a medium heat with a good supply of water at the root. Avoid wetting the flowers which hastens their decay. Young plants may be inarched, m, l.

Chrysanthemums—Increase by cuttings and layers.

Cinerarias—Shift pot-bound plants, keeping down green fly with fumigations.

Cuttings of many plants, both succulent and woody may be put in to good advantage. Keep moderately moist and cover the more delicate with hand glasses.

Flowering Plants—Keep up a succession by potting and bringing to heat and light, as great a variety as possible. As they pass out of bloom, lay away, heading back and otherwise regulating as necessary.

Fuchsias—Bring from Green-House to forward the flowering season. Train to a neat round or pyramidal form. Repot young plants.

Hydrangeas, Pinks, Carnations and Daisies may also have a place in the Hot-House, m, l, to force into flower.

Grapes—Attend to as the stage of growth requires. Green-House plants are just bursting, and those in forcing houses may be in bloom, setting fruit, in the last stages of swelling or ripening off according to length of time fire-heat has been used. Particular directions can not therefore be given. Outside borders may be uncovered and manured, ll, if the weather is warm and dry.

Heaths—Shift to larger pots as necessary.

Insects—Destroy by tobacco fumes.

Lantanas—Repot, f, m, plants for blooming early.

Layer woody plants for an increase of stock.

Musas—Water freely when in a growing state. Change those needing it to tubs of fruiting size.

Peach, Fig, Orange, Lemon, and other trees in pots, now require an even temperature, abundance of air, and light. Water freely and keep down insects.

Pelargoniums—Place in a light airy situation, watering rather sparingly.

Roses—Shift established cuttings and those intended for early flowering, to large pots. Harden off a portion for out-door planting, by putting in frames out side.

Seeds—Sow an abundance of annual exotics and natives.

Syringe the walls and plants, and sprinkle the floors each morning to maintain a moist atmosphere.

Water—Give moderately, especially to woody plants. An excess is more to be feared than too little. See that the drainage is perfect.

Apiary in March.

BY M. QUINBY.

St. Johnsville, N. Y.

As soon as the frost about the hive is melted, scrape out all dead bees and dirt from under the combs, leaving nothing that can mold and make it unhealthy for the bees. Turn the hive back carefully, without disturbing the bees, until the cluster can be seen, and ascertain if there are any dead ones between any of the combs; if so, remove them before they putrefy—a large wire, crooked at the end, will answer very well for the purpose of working them down. If already moldy, the combs in such place should be cut out Keep the bees quiet with tobacco smoke during the operation.

The inexperienced should avoid feeding as long as it will answer to wait; it is quite sure to induce robberies and contentions with other bees; often resulting in more mischief, than to let a colony or two starve. The condition of the colony in respect to food, may be frequently ascertained by inverting the hive carefully some clear morning, and getting such a position, that the sunlight may go, if possible, between the combs to the top of the hive. If *any* sealed honey can be seen near the top, or outside, there is no particular danger of the bees starving short of two weeks. If the movable frames are used, the exact quantity of honey on hand can be ascertained. If any colony is nearly out, some other one is quite sure to have a surplus. By changing a comb or two from the heavy one to the other, both may be benefitted. To feed bees in the common hive, take pieces of comb containing honey, lay them on the top, and open the holes for communication; then set over a close box, to keep away all other bees—if practicable such box should be close enough to prevent others from even scenting the honey. A box with honey worked in by the bees is a very convenient way of feeding. When strained honey is to be fed, it is best to scald and skim it, adding water to prevent burning. If nothing else is to be had, sugar made into a thick syrup, will answer to prevent starving. This, or the liquid honey, may be poured into a shallow dish, and set on the hive. Wood shavings or other light materials will float on the top, and prevent the bees from drowning. The bees soon learn the way, if a few drops are trailed over the side at first.

Bees should occupy their Summer stand as soon as possible in the Spring; there is a great loss in changing after they commence labor, unless to a distance of at least a mile.

In sections where there are but few early flowers, and the stocks have a good supply of honey, a very good substitute for pollen can be obtained in rye, ground and unbolted, and placed where bees can have access to it. It is said early and extensive breeding will be induced, and they will become strong in time to take advantage of the first yield of honey from the flowers.

A light snow during this month, followed by clear sunshine, will attract the bees from the hive more readily than in mid-winter, and until it begins to pack, it is generally fatal to those that settle on it. If shading the hive will not prevent their issuing, they may be stopped in for a few hours.

Bees that are in the house, may be kept tolerably quiet during the turns of moderate weather, and until a good day occurs to set them out, by putting snow or ice in the room. For setting them out, choose a clear, warm day, any time from nine o'clock till three. Have the stands all ready, and as far apart as possible. A dozen stocks every two hours is about the right number. *Old* snow on the ground will do no harm.

If too many bees gather into one or more hives, and leave others correspondingly short, it is well to change them the next day, putting the weak one where the strong one stood, and the strong one in the place of the other; it will usually set them right.

If severe weather occurs after they are out, return the weaker ones, if not all, to the house. Nearly close the entrance as a protection against robbers, also to preserve the animal heat, which is needed at this season.

Condition of Farming on Western Prairies.—In December, (Vol 17. p. 364,) we published a letter from H. H., showing the defects and the dark side of farming on the Western Prairies, particularly in Illinois. Last month, (page 38,) G. D. Smith gave an opposite view of the matter. There is much truth in the statements of both correspondents, as we can testify from personal observation, and we hope what they have written may be the means of awakening inquiry and thought. We have a rejoinder from H. H., in which he quotes from Illinois journals several passages to confirm his former statements If we publish this we must admit a reply from Mr. Smith, and the discussion would be quite likely to degenerate into a personal one. We have not room for this, and having heard both, prefer to drop the debate here,

Eighteenth Book of Chronicles.

CHAPTER I.

1. And it came to pass in the reign of Franklin, whose surname was Pierce, that there lived in the Province of New-Jersey a man named Thomas.

2. And Thomas was a husbandman, who dwelt upon the land which his fathers had given unto him.

3. But by reason of much sickness and of floods and drouths, he had not dwelt in prosperity, as had his fathers.

4. His land was not fruitful, neither his flocks nor his herds. Only his asses yielded any profit of all his labors.

5. Now Thomas had taken unto him a wife from the daughters of the princes of the Province of Pennsylvania, and her name was Catharina.

6. But Catharina was discontented in the house of her husband, and wearied him much with her daily entreaties.

7. For she said daily unto Thomas, Thou art not like unto my brethren in the house of my father in the Province of Pennsylvania.

8. Their lands yield plentifully, and they eat of the good things of the earth, both they and their wives and their little ones, while I dwell in poverty and sorrow.

9. Then said Thomas unto her, What wilt thou, Catharina? Behold, I toil even from the rising of the sun to the going down thereof. My fathers dwelt here in abundance, and I labor more than they, but yet prosperity cometh not.

10. But Catharina reproached him still the more, and upbraided him for lack of knowledge.

11. And she said unto him, Thou art ignorant, Thomas. Hast thou not heard that in the Province of New-York, even in the great city of that province, called Gotham, that knowledge doth abound?

12. And is there not on the great street of that city a temple, where wise men do gather on the second day of the first and of the third weeks in every month?

13. And do not those who are skillful to make the earth bring forth abundantly, meet there and make known to each other the secrets of gaining riches from stubborn land like thine own?

14. Go thou up thither, and thou too shalt be wise, and our lands shall become fruitful.

15. But Thomas was simple minded, and heeded not the counsels of his wife;

16. For he said, I have heard that they are chiefly crafty men, and they who gather together into that temple are those who would draw simple men into a snare by their specious words.

17. Nevertheless, Catharina left no peace unto Thomas, but she said daily unto him, Go up and get thee wisdom.

18. And when his soul was weary within him from her urging, he said unto her, I will get me up to the temple of wisdom as thou desirest.

19. And great was the joy of Catharina, and that night she slept not, but she mended his garments, and made ready for him cakes and cooked meats for his journey.

20. Neither did Thomas sleep, for his heart was troubled.

CHAPTER II.

1. And very early in the morning Thomas arose, and saddled his mule, and Catharina filled the panniers with much provision for his journey.

2. And before midday he reached the Great River, and gave his beast to an inn-keeper hard by, and hastened him over, and through much people running to and fro.

3. And after much travel through the Great Street that is called the Broad Way, he came to a narrow entrance to a second story, and there he saw it written: "FARMERS' CLUB MEETS HERE TO-DAY. *Strangers particularly welcome.*"

4. Then he knew that his journey was ended, and he ascended with joy to an upper room.

5. And there he found gathered of the wise men a small number, and *many* others like himself who had come hither seeking knowledge.

6. And Thomas was much afraid, and sat him down in a corner to listen to the words of the wise men.

7. And one of them read from many heathen languages curious and marvelous things.

8. And after him stood up one, and another, and talked very skillfully (slily speaking of what they had to sell); but Thomas knew not whereof they talked, and his heart fell within him, for he thought, What shall I say unto Catharina of my journey?

9. But there rose up one from his own province, even of the province of New Jersey, one of the land princes who had got himself a very great name in all the provinces, and *professed* to know all things.

10. And his words did flow very smoothly, and he talked much of his own land, and what money he had gathered from his husbandry.

11. And Thomas gave good heed unto his words, and heard him gladly, for the man had the skill to draw much people after him by his crafty speech.

12. But most of all did Thomas rejoice in the man's prosperity in raising *cabbages* for the markets of the great city, from which he did get great bags full of silver and gold.

13. And the man pretended to keep not back the secrets of his success, but to reveal all things.

14. And he said his land was very poor, but he put upon it a medicine he had discovered, that charmed it. Only a very little was needed, so much as a man could take in his hand for the land one could stride over.

15. And the land brought forth abundantly, even great cabbages, as large as a bushel measure.

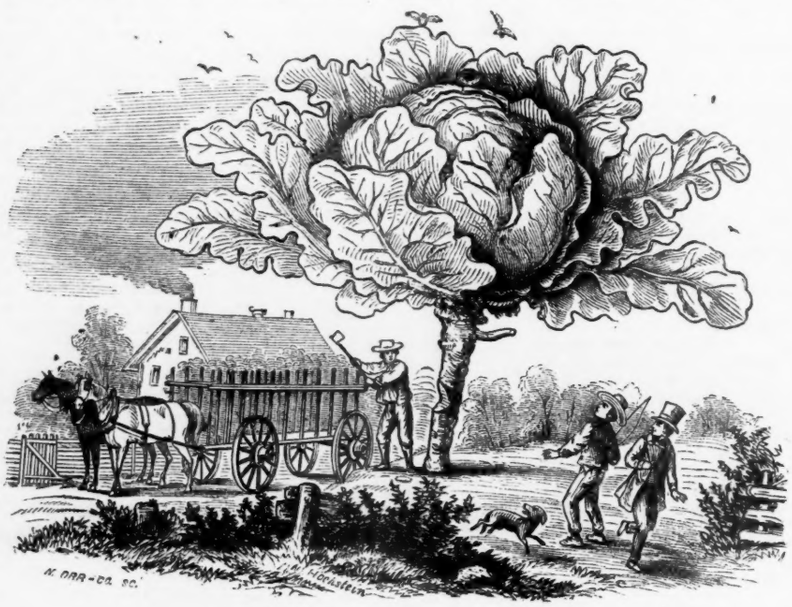
16. And the land when treated to the medicine yielded *at the rate of* ten thousand nine hundred, and four score and ten such great cabbages upon one acre, or so little a space as a man could walk over in three score and five steps.

17. And when Thomas heard the man say he would sell the medicine, he waited no longer, but gat him out from the assembly, and hastened him back to his beast and paid the inn-keeper.

18. And with much beating of his mule, he hastened on and reached his home at the going down of the sun.

19. And Catharina met him at the gate, and even before they went into the house he told her of the wonderful things he had heard, and of that wonderful medicine, called super-human horsefat (which in the Latin tongue signifieth *super-phosphate.*)

20. And until the sixth hour of the night did they talk of the fields they would plant in cabbages, and of the gold that would come unto them. And then did they go to their couch with joyful hearts.



"A DREAM THAT WAS NOT ALL A DREAM."

CHAPTER III.

1. But Thomas slept not soundly, and in his night vision he *dreamed a dream.*

2. And in his dream he saw a *towering* cabbage, that like Jonah's gourd rose up in a night, and the birds of the air lodged and built their nests in the top thereof.

3. And in his dream he called his neighbors, and provided him horses and wagons, and began with an ax to cut down the stem of the cabbage.

4. And as it fell, the great noise of the falling awoke him, and he related his dream unto Catharina, who had not yet slept. And she interpreted the *dream* to be a foreshadowing of the great riches in store for them.

5. And they talked of what they would do with their riches until the tenth hour of the night, and then arose.

6. And while Thomas harnessed his mules, Catharina made ready his morning repast, and at the break of day Thomas began his journey, to see the smooth-tongued man.

7. And he carried with him in a bag all the gold and silver in the house, both his own and Catharina's, to buy of the medicine, even all his mules could carry.

8. And he delayed not in his journey, even seven leagues, until he came to the house of the smooth-tongued man.

9. But his heart failed within him when the man's servant told him that his master was gone, as was his wont, to the great city, to sell his medicine for sick land.

10. Then Thomas asked the servant to show him the great fields of cabbages.

11. But the servant seemed not to know whereof he talked. And he said, My master hath in the corner of his garden a few cabbages, but I know not of the fields whereof thou speakest.

12. Then the servant showed him the cabbages and tarried long at one larger than the rest

13. It may be, said the servant, that thou hast heard my master speak of this cabbage. I have indeed heard him say, that *if* an acre was covered with such cabbages, the sum would be very great, even ten thousand or more.

14. And moreover, I did hear my master say that this cabbage yielded *at the rate of* ten thousand nine hundred and four score and ten cabbages.

15. But as my soul liveth, this is all the cabbages I have seen my master raise in the many years that I have served him.

16. And Thomas asked the servant what was put upon the land?

17. And the servant answered that the new medicine made by his master for to sell, was put with the plant.

18. But he could not say more of it. He had seen his master take it from a bag, and privately put with it as much more of something yellow, brought in a bag from the heathen land of Peru.

19. Then was Thomas much cast down in spirit, and he gat him to his mules and turned his face homeward

20. And the rest of the deeds of Thomas, and of his wife Catharina, and of the deeds of the smooth-tongued man, and of the sayings of the wise men of Gotham, are they not recorded in the Chronicles of the land princes of the Province of New-Jersey, and are they not laid up in the archives of the *Agriculturist* even on the street that is called Water, in the great city of Gotham?

Buying Artificial Manures.

Not a day passes without inquiries in regard to the value of this or that fertilizer offered to the public. *Mineral* manures, as a class, are not worth the price asked for them after they have been through manufacturers' hands. We look upon the whole genus of super-phosphates, as not worth purchasing—except when unadulterated and made from *unburned bones*, which is rarely the case. In the same category we place all the "phosphatic guanos"—no matter whether called "Mexican," "American," "Pacific Ocean," "Columbian," "Patagonian," "Sombrero," or by any other name. We believe that the value of any concentrated manure depends mainly upon the amount of *organic matter* (that is, animal or vegetable matter) which it contains. And any fertilizer, to be worth $15 a ton or more, must contain a considerable per cent of actual ammonia-yielding elements—not merely "organic matter yielding ammonia," as many of the published analyses read. The seller of any one of the dozen "guanos" now advertised, must show us that the article contains a fair proportion of rich ammonia-yielding *organic* matter, before we can have confidence enough in it to buy or recommend it. We care nothing for the certificates of effects, or the (purchased) analyses exhibited. Such recommendations can be easily obtained, and are obtained, for the sheerest humbug of a patent medicine in the land. Peruvian guano, *unburned* bones, and such as are made almost wholly of animal matters—*not worked over with a large admixture of other less valuable material*—are the chief concentrated fertilizers worthy of an investment

Onion Culture—(Prize Essay.*)

BY WM. T. JENNINGS OF WESTPORT, CONN.

[The writer of the following has, we believe, had an experience of some thirty years in growing onions for market,—Ed.]

SELECTION OF GROUND.

A deep loamy soil is considered the best for onions, though they will grow on soil, a large proportion of which is clay. A light porous soil with a gravelly subsoil should be avoided. The surface of the ground should be nearly level, as hilly ground is liable to wash from heavy rains. In selecting a piece of ground for onions, there are several things that should be considered.

1st. Ground that is stony should be avoided, unless the cost of removing the stones is first considered.

2nd. Ground that is overrun by weeds and troublesome grasses, should not be chosen until they are first subdued.

3d. Ground that is shaded will not do; neither that which is too wet to be worked early in the Spring.

Having attended to the foregoing hints, it is also important to select with reference to cultivating the same ground for onions for an indefinite length of time, for in so doing, the labor of first preparation is avoided, besides each succeeding crop is more easily cultivated, provided the previous work has been thoroughly done.

PREPARATION OF GROUND FOR SOWING.

Having made a suitable selection of ground, the next thing to be considered is its preparation. First gather out the stones pretty thoroughly—putting the largest ones into fences, the middling sized ones into blind ditches, and the smallest ones into the mud holes of the roads. In this way some good is done. Above all avoid the heathenish practice of emptying them by the road side, not only disfiguring the roads, but giving a harbor for briers, elders, and the ten thousand noxious weeds that now infest such places. In the next place give the ground a heavy coat of the best manure. Hog-pen is the best home-made manure, next, stable, if not too coarse; next, common barn-yard well rotted. As to the quantity of manure on an acre, that must be determined in part by the condition of the soil. From 20 to 30 loads of 40 bushels per load, make a very good coat to begin with. After this is deeply plowed in, a top dressing of wood ashes—say 150 or 200 bushels to the acre may be given, or from 300 to 500 lbs. of guano, or bones ground or sawed are good, or any well pulverized manure that will not be in the way of the harrow and rake, may be used. But take care not to use seedy manure if you wish to save much labor and patience. Manure may be carted on and plowed under in the Fall, or in the Spring just before sowing. If the ground is plowed in the Fall, it will not be necessary to replow in the Spring. Fall plowing should be put off as long as possible—say to the middle of November.

Having manured and plowed your ground, it is now to be harrowed and raked, until it is as even and smooth as a beet bed. Harrows of either iron or wooden teeth are first used to bring the ground to a general level, and the stones to the surface, the brush or bush harrows are then used until the lumps are pulverized, and the surface of the ground made smooth, then wooden hand-rakes of twelve teeth each, are applied to take off the small stones and finish for sowing.

Manure for top dressing may be harrowed or raked in, and if guano is used, it is well to make a second application during the growth of the crop, which may be scuffled in by the hoe. All manure used should be plowed under or mixed with the soil immediately after it is spread.

SOWING.

Now then the seed is to be committed to the ground. And here a word or two of caution is necessary. Be careful what seed is sown. If you are under the necessity of buying seed, procure it of some reliable man, a regular, honest onion grower. It should not be over one year old, and should *sink* when placed in water. Better not trust to seed merchants, unless actually obliged to. Rather pay $5 per pound for reliable seed, than get doubtful seed for nothing. Having obtained your seed, say from 3 to 4 lbs. per acre, you now proceed to deposit it in the ground, which is done, where onions are raised to much extent, by a simple machine (costing $5) drawn by hand, making two drills twelve inches apart, and dropping the seed in them at the same time. Next comes the covering process which consists in drawing a hand roller over the ground lengthwise the rows; or which is the most common way, pushing a clean bright hoe over the drills. This may be done by boys, as they make smaller and lighter tracks than men. Commence the work straight, and then be careful to keep it so; not but that crooked rows make straight onions, but for the beauty and neatness of the thing. A man accustomed to it will sow three acres a day. The time for sowing is the month of April, earlier or later according to the state of the ground. It is generally found that the earliest sowed onions, other things being equal, do the best.

CULTIVATION.

About four weeks from the time of sowing, cultivation commences in earnest. The first thing to be done in this department is to go through them with an onion hoe, as soon as the rows can be distinctly seen when the dew is on in the morning. The hoeing this time must be light—just skimming the top of the ground—the hoe being put forward and drawn toward the hoer. In the course of a few days weeding must be commenced; removing *all* the weeds from among the onions. This part of the work is usually performed by boys, for various reasons. 1st. Because they can be hired for about half the price of men. 2nd. A good active boy, fifteen or sixteen years old, can do as much, or more work than a man; and also because it is less tiresome for boys than full grown men: for it must be remembered that the stooping, or crawling posture must be assumed in weeding onions. In other words, whoever does this work must get down to them, eyes, fingers and all, and not be ashamed of his occupation, or of soiling his clothes. The tools needed for hoeing and weeding onions are few and simple. The most approved hoe in use, is usually made from a buck saw plate, either new or worn, cut about eight inches in length, and from one to two inches in width, with a goose neck riveted on the inside of it; or to make the hoe stiffer, two goose necks are used, riveted as before, but about one and-a-half inches from the ends of the plate, and uniting in one shank in the handle, which may be about five feet long. This hoe should be kept clean and bright, so that the dirt will slide over it without being much displaced. A push or scuffle hoe is sometimes used in the advanced growth of the crop. The tools used for weeding, aside from what nature has provided, are a crooked knife, (common case or shoe knife with the lower end bent up) and a weeder made of thin steel plate, about two inches long and one wide, riveted with a goose neck, like the hoes, and fixed in a handle about eight inches long. Later in the season, a larger weeder is used, about four inches in length, and set in a handle about two feet long. This is used, when the onion tops have become large, for the purpose of taking out single weeds, and when hoeing the ground would injure the onions.

After this description of tools, we will return to hoeing and weeding. As no definite rule can be given for the number of hoeings or weedings, this must be left to the discretion of the owner, or the person in charge. Suffice it to say, the oftener the ground is stirred, the better for the crop. Ground should usually be hoed about once in two weeks during the earlier part of the season, and the weeding must be governed by numbers and growth of the weeds. It is all important that the weeds be not suffered to get the advantage. Keep them down—keep them out—be vigilant. Think of the old adage about the stitch in time, and apply it here.

This same vigilance must be exercised during the growth of the crop. Some persons, owing to extra work during harvest, are apt to neglect their onions. This should never be. July is an important month to the onion grower. If neglected then, the crop is as good as half lost. Neither is it true that onions are injured by working among them when bottoming, although care is necessary not to knock down the tops, nor disturb the bulbs when growing; but bad usage is better than entire neglect. Neither should weeds be permitted to go to seed on the ground intended for onions the next year, after the crop is removed. It is sometimes necessary to hoe the ground over entirely, and carry off the weeds that may have grown after the onions have been pulled. The great pest of onion ground usually is purslain; and this must be watched and dealt with in a summary way. It may be hardly necessary to suggest here that the fences and borders of onion grounds should be kept entirely clean and tidy.

A man will hoe from half an acre to an acre of onions in a day. A smart boy will take care of from one to two acres of ground during the season, and have an odd day now and then to go fishing.

HARVESTING.

This takes place during the latter part of August, and first of September. The time to pull onions, (which should be done by hand,) is when the tops have fallen down and turned a brown or yellowish color. Sometimes on account of the season, or seed, or both, there will be more or less that will not drop down and dry up. Some have proposed in such cases to roll a barrel over them, or break them down in some way, but it is of doubtful expediency. A scallion will be such whether standing up or bent down. When the main crop has ripened down, it is best to pull them all, and sort out those which are not fit for market, to feed out to the cattle; for which purpose they are esteemed of considerable value. The cattle generally devour them greedily; they should not however be fed to milch cows.

The most approved way of curing onions after they are pulled, is, to let them lie scattered about the ground for about three days, and then pile them up in small stacks, containing about a barrel each: after remaining so about two weeks, open them, and give them frequent stirrings for about three bright drying days, then house them in a perfectly dry condition. The stacking gives them an opportunity to sweat, and keeps them in a measure from the weather, so that when opened, the outside skin shells off and gives them a brighter and clearer appearance, than they would have if left to cure, scattered about the field.

Onions cured in this way may be put up in bins, or bays to the depth of four or five feet, without any danger of injury; there to be kept, if desired, until the following Spring, provided the tops are left on them. If put in barn bays, a rough floor should be laid down on timber a few inches from the ground, in order that a circulation of air underneath may be obtained. Onions should not be kept in cellars unless remarkably dry and cool. A slight freezing does not hurt them, provided they are not disturbed in their frozen state.

MARKETING.

This may commence as soon as onions are ripe, and continue until the middle of May following, provided communication is open. The most common way of sending onions to market, is by putting them in barrels with one head, and sending them in vessels; as freight by water is cheaper than by land. This holds good however only for those who are fortunate enough to live in proximity to water.

All the preparation onions require for market, is to cut or strip off their tops and put them in barrels. A man or boy will prepare fifty bushels in a day. Onions always keep best in their tops; therefore they should not be removed until ready for market.

The price of onions varies from $1.00* to $5.00 per barrel, but the average nett price, taking one year with another for several years back, has been about $1.50 per barrel.

The onions sent to New-York Market are usually wholesaled from vessels to the dealers, and resold by them in smaller lots, they selling from 25 cents to 50 cents per barrel, in advance of cost, so that by the time the consumer gets them the first price is nearly doubled.

GENERAL REMARKS.

There is no crop perhaps, more sure than that of onions. They are liable, it is true, to blight, but this seldom occurs unless they are neglected. Rich soil, with a good application of manure every year, and proper attention will almost invariably insure a good crop. Five hundred bushels to an acre is an average crop, though eight hundred are frequently raised.

There are three varieties of onions commonly raised, viz., red, white and yellow. The red onions take the lead, as they are more hardy, grow better, and bear handling better than either of the other kinds. The foregoing directions apply equally to each variety, though white ones require more attention in curing and gentler handling. White onions in limited quantities and in good condition sometimes sell for fifty per cent in advance of red ones.

Onions, unlike most other crops, may be raised on the same ground for an indefinite length of time, without any deterioration in quality or quantity, provided the ground is in good heart. The writer knows ground that has been used for upwards of thirty consecutive years for this crop, and the last was as good, or better than the first.

It may not be amiss to remark here that skill in the onion business—and it is an important item—is only acquired, as in every other department of labor, by practice. Therefore it is better for a new beginner in the business to commence on a small scale. And let no one delude himself with the idea of becoming suddenly rich from raising onions. Patient, honest industry will here,

* In response to the call upon experienced cultivators for practical information on the Culture of Onions, twenty seven essays were received, of which six were too late, or were ruled out because from practical *writers* but not practical onion *growers*. The remaining twenty-one essays were submitted to a committee of intelligent gentlemen—our own time and health not allowing us to do more than take a cursory glance at a part of the articles. The committee devoted several days to the subject, *separately* reading each article carefully through, and first selecting six of the best. These six they read twice again, and two were selected, and on a final reading the one was selected which most nearly responded to the terms of the call. On coming together, it was found that each gentleman had, without consultation, fixed upon the same essay—the one which is herewith published. The Committee wish us to say that they found great merit in nearly all the essays, and it was with difficulty that they could come to a final decision—so nearly equal in value were many of the essays. . . In consideration of the increasing importance of this subject, and the little that has been written on it, we have addressed a note to eighteen of those contributing essays, requesting permission to print their articles together in book or pamphlet form. Replies have not yet been received from all, but if permission be given the work will be announced in the business or advertising columns.—Ed.

* Present price, $3.00, Jan. 25th, 1859.

as everywhere else be rewarded, and when a good market is within a convenient distance, and the soil suits, perhaps no crop pays better than onions.

RAISING ONION SEED.

As it is a law of nature that like produces like, it is of the utmost importance that great care should be taken to obtain seed that will produce the most perfect specimens of its kind. This holds true in regard to onion seed, for it is a notorious fact, that this esculent has been improved in shape and color within a few years, from a flat turnip shape and pale red color, to nearly a round or spherical form, and a bright clear red.

In saving onions for seed then, care should be taken to select those of the desired shape and color and of medium size, or a little above it. The best time to do this is when they are pulled, as then the perfectly ripe ones are more easily distinguished, than when they are cured. Another advantange to be gained is that the earliest may be reserved, in order to get an earlier crop if desired the next year. Onions intended for seed should be set out about the middle of April, or at the usual time of sowing The ground should be prepared in the same manner as for the regular crops, and then laid out in drills about three feet apart, and four inches deep. In these drills the onions are to be placed, four or five inches apart, covered with fine dirt and gently pressed down with the feet, or hand roller. As soon as they are well out of ground, they should be gone through with a hoe or cultivator, and the weeds kept down by occasionally hoeing the ground, and weeding, until the seed is ripe. The writer has found that digging a trench between the rows, either with a spade or hoe, about the time the seed is in blossom, and working the dirt thus dug out around the onion stalks, is beneficial. Care should be taken after the onions have blossomed not to handle them, or disturb their roots.

The seed matures about the same time that onions raised from seed get ripe. The time for gathering is when the heads assume a brown color, and the balls begin to crack and show the seed. The heads should then be cut off and exposed to the sun on a blanket, or floor, until the seed will readily shell; then by rubbing with the hands, or thrashing with a flail if a quantity is raised, the seed is made ready to be passed through a fanning mill or exposed to a winnowing process. After this is done, the seed should be put in a vessel of water, and only that which readily sinks is to be preserved. It is then dried in the sun for two or three days and put away in a bag, in a dry, airy place until wanted. Onion seed should never be trusted after it is two years old.

The price of seed varies as much as the price of the onions themselves, ranging from $1 to $5 per pound. The different varieties when planted for seed, should be put at considerable distance apart, as the seed readily mixes. From three to five pounds of seed are usually raised from a bushel of onions.

Marketable Potatoes in New-York.

To the Editor of the American Agriculturist.

As it is time for the farmers to decide what kinds of potatoes to plant the coming season, I send you these few remarks made up from my experience of marketing potatoes the past year, and also from minute inquiries made of farmers from different sections of the country. In the first place for New-York Market we require a white fleshed, white skinned, round or oval shaped and smooth potato, that will boil perfectly dry and mealy, in addition to which the farmer wants a good yielder, and one that will as a general thing withstand the rot.

From the past year's experience, of all the kinds which have come under my notice, I unhesitatingly pronounce the *Peach Blow* to come nearest to these requirements for a standard potato. It has been, and is now the most plentiful in market, and when raised on sandy soil, sells for more than any other table variety. It will yield from two to three bushels to one of Mercers, on the same soil, and so far, has grown free from rot on any ground that would grow sound potatoes of any kind.

The next variety I would recommend is the *Long Pink Eye* or *Pink Eye Kidney*. It is a good yielder, commands a high price in market, and is one of our very best Spring potatoes, cooking dry, white, and mealy.

The *Blue Mercers* I would also recommend where they will grow of large size, smooth and sound.

The *Carter* is a first class potato, but being subject to rot, and a poor yielder, it is not profitable to raise for market.

The *Porter*, a good cooker, but small in size and yield, therefore, not profitable.

The *Rough and Ready*, from the past two year's experience, I class as a potato of first quality, which only requires to be known, to be appreciated, as it comes nearer to the old fashioned *Carter*, both in looks and quality than any other kind. It is a good yielder, very hardy, and ripens before the *Mercers*, but later than the *Dykman* or *Junes*.

The *Round Reds* and *Yellow Pink Eyes* are hardy, good yielders, but are used mostly for shipping and ship stores.

The *Dykman* is the earliest good variety we have, yields well, and will cook dry when half grown, but is a poor Winter potato; the *Mountain June*, is also a good potato to yield, but is apt to have black spots under the skin.

Prince Alberts are pronounced after the past year's experience, a failure, for they will not take as market potatoes, when offered for sale, and will not cook dry, unless under very favorable circumstances, until quite late in the Spring. The only redeeming quality they have, is that they will not rot. I would advise farmers not to plant them, as the call for seed at high prices, is about run out.

The *Buck Eye* is another humbug. It has been tried in the scale and found wanting. They would not bring as much in market the past season as the *Junes* and *Yellow Pink Eyes*.

There are a great number of varieties constantly before the public, but as they are generally brought out by persons for the purpose of selling seed at enormous prices, I would advise farmers to choose such kinds for early and late planting as yield well, and will command the best prices for market potatoes, as they then will find a ready sale and the highest prices let the market be as it may. B. STEPHENS.

West Washington Market, N. Y., Feb. 7. 1859

REMARK.—We do not fully endorse Mr. Stevens' high praise of the "Peach Blow" potato. It is a good potato, but we would much prefer the Mercers for our own table—when they can be obtained. So far the Peach Blow is less subject to rot than the Mercer.—ED.

For the American Agriculturist.

How to Raise every Live-born Lamb.

MR. EDITOR:

Feeding weak lambs with fresh cow's milk is often indispensable; the old methods of doing this are too troublesome, but in the following manner a dozen or more may be fed with little or no difficulty, and in the same time *one* could be in the common way, while the lambs need not be taken from the ewes. Stooping down take up the lamb by grasping its right foreleg at the fetlock with the three last fingers of the *right* hand (the thumb and forefingers touching the ground), at the same time taking its left foreleg in the same manner with the *left hand*—then raise up, lifting it, hanging by its forelegs, with its back towards you—holding its head a few inches under your chin. Insert the thumb and forefinger of each hand into its mouth, elevating and prying it *wide* open. Then allow a stream of cow's milk to flow slowly into the lamb's mouth *from your own mouth*, as fast as it can swallow. The milk will strangle it a little, and occasion it to struggle some, but this will not injure it in the least, and after a few feedings, the lambs will huddle around you and stick out their noses, begging to be fed.

In cold or wet weather watch them carefully, and feed every feeble or half starved lamb with one or more mouthfuls of cow's milk, and at night feed them until they look middling full, which can be seen by the distension of their ribs. This is the Scotch method, and I have seen the most wonderful success from it. Some years ago, when engaged in the business of wool growing in western New-York, I had the largest number of lambs in proportion to the ewes, and the largest and most evenly sized flock, raised by this method, by a Scotchman, that I ever knew. He was passing around among the ewes from morning to night, with a quart vessel, like an oil-can, filled with milk, catching and feeding every needy or *suspected* lamb, and after giving one mouthful, he would set them on their feet, and look at them to see if they were full enough, and if not, would take another mouthful, and give them more. For a flock, I think of 250, the quantity of milk required was so small, that he supplied it from his own two cows, without asking pay (milk being of little value there), and had enough left for his family. R. B. W.

Bridgeport, Feb. 7, 1859.

Tim Bunker on County Fairs.

MR. EDITOR:

Jake Frink is a fool, as you might know by his letter. You see I was a joking him about the interest he and his neighbors have got to taking about my affairs, since I begun to lay tile and write for the paper. I can't stir, even early in the morning, but Jake'll poke his head out the window, night cap and all, and want to know "where upon airth I'm gwine to neow," just as if I had never been off my farm before. But the thick-headed creatur never see the drift of my remark about sending an apology and went and wrote that letter. Every body that knows me, knows well enough that I seldom do anything to my neighbors that I have to apologize for, and when I do I am apt to make it in person. Jake's letter looks curis up here and I shant hear the last of it in a year. All I have to say is that I'm glad it set him to thinking. Folks had better be thinking of something even if they don't think straight, than to be as stupid as dolts. Jake may make something yet if he keeps thinking.

I went up that morning to the city to attend the annual meeting of our County Agricultural Society. You see, last year, they put in the Colonel president, and all the screws got loose, and we had that fuss of a "gal hoss race" as the boys used to call it. Now I have nothing to say agin woman kind in general, or the girls in particular; but it does seem as if, when you got a woman out of her place, she made a good deal more of a smash up than a man. Every thing goes wrong. It is just like breaking down the hub of your cart wheel, when the frost is coming out of the ground, in the Spring. It is a mighty dirty job, and business has got to stop.

It was pretty much so with our County Society after the fair. It made a great deal of talk. Some very sensible men got disgusted, and declared they never would have anything to do with the Society agin, because it countenanced horse-racing. The Colonel's friends said the opposition was all a political move, agin their party. At one time it looked as if we should have to give up the society, there was so much bitterness of feeling. It is surprising to see how far men will carry their political prejudices. Partizanship works into every thing, controls men's votes for the officers, and committees of the Society and sometimes determines the award of premiums.

Democratic corn has to weigh a few more pounds in the bushel, and yield a few more bushels to the acre, in order to be equal to a competitor's of the opposite party. Black Republican butter, though up to the Orange County stamp, stands no sort of a chance beside an inferior article, if it was made from Democratic cream. And because a few men carry their prejudices to this extent, and try to buy votes to get themselves into the legislature, by this petty trade in premiums, at the Fall fairs, there are some addled enough to believe that all our Society affairs are managed upon this principle.

Our Hookertown folks did not go up to the annual meeting last year, thinking that the Society had got along where it would take care of itself. But things do not take care of themselves in this world. If you do not plant hoed crops, briars and thistles will grow. If the friends of an Agricultural Society do not follow it up and shape its policy it will go wrong. We have no right to put our hand to the plow and look back. If we do, we are in very poor business to grumble, that others stand at the plow tail in our place. About the meanest thing a man can do is to grumble. If he cant help it, grumbling will do no good. If he can, he ought to go to work and stop chafing.

I had to work about a month, before the meeting, riding round and talking with grumbling people, before I could get things into the right shape. I have always observed, that there was great virtue in talking. If you have a good cause and keep it before the people perseveringly, you are certain to carry it in time. I knew if we could have a full meeting, from all parts of the County, and talk matters over, we could come to a good understanding, and make the Society efficient in doing its appropriate work, which I take to be horse *raising* and other kind of growth, and not horse *racing*, and the *razing* of industry and good morals. The people who had the management last year, followed their own tastes without meaning any harm to the Society. They would have done better, if they had had better advisers. If the friends of good order wont take the pains to be in their places, and make their influence felt, they have no right to grumble when things go wrong.

The result was, that we had the largest annual meeting we have ever held, and a new board of officers was put in, without much division of sentiment. The Colonel's friends were so much ashamed of their own folly, that they did not make any show of opposition. These County Fairs are doing so much good, that I think every good citizen ought to make sacrifices, if necessary, to sustain them. If they are attended with some evils, as much can be said against all other forms of associated effort. The millenium has not come yet, and no wheels move with so little friction, that they do not need grease sometimes. Apply oil, and stop the squeaking. Our Society has done more to set folks to thinking about the principles of farming, than any thing we ever had among us. There has been a steady gain every year, in the variety and excellence of almost every thing exhibited. The farmers see this and understand it, while city people and careless observers think every show is just alike, a chaotic mass of cabbages, turnips, and other roots; corn and other grains; horses, cows, pigs and poultry. But the farmer recognizes at once, the new Winingstadt, or Enfield among the cabbages—the Ashcroft among the turnips, the Rhode Island Premium among corn, or any new comer among kine or swine. There is something to be learned every year. I have no doubt that Seth Twiggs, Jake Frink, and uncle Jotham have done more thinking about their business, the last two years, than in all the rest of their lives. And when folks begin to think about raising stock, and cultivating the best crops, they soon discover their own ignorance, and seek light. They want to talk and read. I guess there are ten agricultural papers taken in this town, where there was one, two years since. The Farmers' Club is well attended at the school house every week, and the discussions are a good intellectual treat to every body that has a rod of land to cultivate, and that is every body here. The minister, the lawyer, and the doctor, the schoolmaster and the judge are generally there, and the farmers come in from the whole neighborhood. Now all this has come of the County fairs. The Society has left its mark in everybody's yard or garden, dropping young shade trees, apples, pears, peaches, cherries, grape vines, and flower borders. The homesteads look more cheerful, and the people are more thriving in their business. This year the Society has offered a premium for every shade tree set out in the streets. We mean to line every road side in the county, within five years. Even Jake Frink is beginning to dig holes to set out trees this Spring. His old friends will hardly know Jake, or his establishment, in a few years more.

Yours to command,
TIMOTHY BUNKER Esq.

Hookertown, Feb. 8th, 1859.

The "Honey Blade Grass" Swindle!!

We have already advised our own readers to be careful about purchasing any professedly new plant or seed, for which extraordinary claims are put forth, until they see it noticed or at least advertised in these columns. We can but hope they have so far heeded this advice that none of them have been "taken in and done for" by the specious *humbug* now abroad in the land. We refer to selling Hungarian Grass seed at exorbitant prices under the assumed name of "*Honey B'ade Grass*." We regret to find that any of our respectable cotemporaries have given it so much countenance as to admit this deception into even their advertising columns. It must certainly have been done unwittingly, for we can but believe that no *respectable* publisher would knowingly allow his readers, in whom he should have a personal interest, to be cheated out of their hard earned dollars, for the sake of the paltry few cents he may get for an advertisement. [The advertisement was offered in this office, and was instantly rejected with the reply that it could not be inserted for a thousand dollars a line.]

With regard to this "Honey Blade Grass," we will make a statement or two, and hereafter, if it be necessary, show up the parties who are engaged in it, particularly the prime movers in St. Louis, and this city. It amounts to simply this: A species of *Millet*, said to have originally come over from Hungary in the pocket of an "exile," has been propagated at the west for several years under the name of "Hungarian Grass." This last name has become so common that we have used it in designating the article.

It is grown like the old millet from which it does not materially differ, and like the old kinds may be cultivated for the ripened seed, or cut up green and cured as hay or straw for feeding. If ripened for seed, the straw is probably about as good for feeding as well cured oats straw—perhaps a trifle better. We have for many years advised farmers to grow the ordinary millet for seed, and especially as a soiling crop—that is, to be cut green and fed either green or in a dried state.

The "Hungarian Grass" has become so widely disseminated, that the seed is now abundant and could recently be obtained as low as $1 a bushel. Wishing some to distribute to such of our distant subscribers as might desire to try a little of it, we engaged a dealer in this city to procure a lot of as pure and good quality as he could get in the country. After paying him for his trouble in addition to a profit, it cost us only $2 a bushel (of 51 lbs.) delivered at our office.

Scarcely had our last number gone to press before a host of letters came in from subscribers and others making inquiries as to a wonderful new seed offered as "Honey Blade Grass." We immediately investigated the matter. Our first movement was to send two outside parties who would not be suspected, to the head quarters or "agency" in this city. The seed obtained which (we have now in possession) proved to be *precisely like the Hungarian Grass we had previously obtained* at the west. Further investigation has shown that one or more parties, having St. Louis as head quarters, have secured a large supply of the Hungarian Grass or Millet, dubbed it "Honey Blade Grass," issued some hundreds of thousands of pamphlets to farmers, setting forth extravagant properties and merits, and patronizingly offering it in $3 bags (no less quantity). We have one of these bags now in our office procured directly from the "agency" in this city. It weighed just 15½ lbs, including bag, and measures 9½ qts. This we purposely purchased for examination, and paid the regular price of $3 per bag. This is at the rate of over $10 per bushel! (It was bought for us by one of our associates who chanced to be unknown at the "agency.") Any one can call and compare this with the Hungarian Grass. The "agent" was recently shown a sample of each laid upon two similar pieces of paper, and could not pick out his own "Honey Blade."* We remonstrated with him for attempting to gull the community by the assumed name and extravagant claims. He unwittingly confessed that the name Honey Blade Grass, was merely a "trade mark," and attempted to justify his course, by this and other subterfuges.

But enough on this subject now. If what we have stated be not enough to utterly condemn this attempt to get $10 per bushel for a common article, of which the market price is $2.00 and downward, we will give it another "lift," and not spare the offenders either.

*A subsequent close examination reveals sundry "foul seeds" in this pure "honey blade seed" which the pamphlet so urgently advises farmers to purchase instead of the common Hungarian Grass, which it says is an entirely different article. It is indeed, *different*, if our bag from the "N. Y. Agency" is a fair sample.

Plowing Deep—Plowing Shallow.

At first thought it would seem surprising, that practical men should differ as they do on this topic. For instance, we have before us a dozen well written communications, about half of which contend strongly in favor of "going down to the bottom," while the other half assert that to plow below four or five inches is not only useless, but actually injurious to most crops. We can not give these communications in detail, but we venture the assertion that both parties are correct in *their* conclusions. They reason from different points of observation. Let us examine the matter a little.

1. All plants consist of three parts—the main stem and its branches; the leaves whose office is to collect the principal *food* or nourishment from the air; and the roots which collect water (sap) from the ground to keep the plant moist, to supply its juices, and to act as a vehicle for car-

rying to different parts of the plant the food gathered by the leaves. The roots also serve as supports to hold the plant in its place.

2. The roots take in whatever liquids they are brought in contact with. They are increased in size and number by the direct application to them of food or stimulants (manures). They are also injured by coming in contact with such soluble poisonous materials as they can absorb.

3. *The contact of air is necessary to destroy, (oxidize) certain poisonous mineral salts found in all soils—particularly the proto-salts of iron.*

Now then, suppose we have a soil from which air has been shut out, by its compactness, or by the constant presence of water or moisture in its pores. To break up and pulverize such a soil deeply, is to invite the growth of the roots downward *below the usual access of air.* These deeper penetrating roots then absorb some of the poisonous (unoxidized) mineral compounds. The consequence is, the structure, not only of the roots, but of the whole plant, is injured. On such a soil it very often happens that shallow plowing, which only disturbs the thin surface portion immediately in contact with the air, will be preferable for the time being, to going down deeply at once. The true way is to go only half an inch to an inch deeper every year, and bring up a little of the under soil to contact with air, to be fitted by it for use, but not to bring up enough to injure the growing crops. Every one must have observed that the soil thrown out of a deep well will at first grow nothing; and yet after contact with air for a year or two, or more, it becomes quite equal to the old surface soil.

Let us now look at another class of soils—those which are open, porous, and by reason of good natural under-drainage are a part of the year free from standing water to the depth of a foot or more. In this case the air will have penetrated deeply, and destroyed poisonous mineral compounds. Deep plowing will not loosen a mass of dangerous material, but on the contrary will invite down the roots of plants where they will find a supply of moisture even when the surface is parched with drouth. To stir such soils only at the surface, would tend to a shallow growth of roots, and when the surface dries up, the plant fails to get moisture enough to supply the waste of water by evaporation from the leaves. In soils of this character, it is manifestly desirable, nay, important, to plow deeply.

It is owing to such diversity of condition in soils, that practical men, reasoning only from their own experience, have been let to exactly opposite views in regard to deep and shallow plowing. Literally, what is one man's meat, is another's poison. And this remark has a wider application than to the mere question of plowing. The manures appropriate to particular soils, differ as widely as does the treatment required. Quacks in medicine recommend one kind of pills as a cure for all kinds of disease. Quacks in agriculture, in like manner prescribe a particular treatment or manure as just the thing for all soils and crops. If ingenious, they can each make out plausible arguments to support their pretensions.

In regard to plowing deeply, the true theory is to provide a deep thorough drainage for all soils not naturally dry to a considerable depth from the surface; and then, *by degrees*, break up the subsoil, until a deep bed of dry, warm, air-exposed soil is secured. When this is done, plants will send down and spread widely a mass of roots that will support a corresponding growth of vegetation above the surface, and as before remarked, our crops will be independent of the mere surface effects of drouths or rains.

The "Improved King Philip Corn."

Respecting this variety, which was noticed last month, and which we are distributing, Mr. Carpenter, from whom we obtained it, sends the following note: "The corn you had of me, a part of last summer's crop, was planted on the 3d of June, and harvested about the middle of September. In ordinary seasons it ripens in about 100 days. I planted on about four acres of sward ground, on which, before planting, I sowed 500 lbs. guano broadcast (125 lbs. per acre), and harrowed it in well. The corn was planted three feet apart each way. My crop is estimated at about 400 bushels shelled corn, or 100 bushels shelled corn to the acre. It has a strong growing stalk, and makes a large quantity of fodder. By actual experiments I find it to produce one third more shelled corn to the acre, than the old King Philip."

About Liming Land.

Much of the counsel given by theoretical advisers in regard to applying lime to land is based upon a wrong hypothesis. The plant wants lime, say they, to help make up its constituent elements. They point you to the ashes of plants to show that lime is found there (as an accidental or incidental impurity, we say), and therefore they teach that you must apply lime to the soil. Without stopping to discuss this question in full, we will remark *first*, that with considerable experience in liming land, our best results from its application have been on a soil perfectly saturated, so to speak, with lime. Its fine particles were in part disintegrated (or pulverized) lime stone; the water flowing through it, was lime water; and the rocks and stones intermingled with the soil, were nearly pure lime stones (carbonate of lime). In this case the applied burned lime could not have been needed to supply lime to the plants, for, —the theory of the *condition* of the lime naturally in the soil to the contrary notwithstanding—we confidently assert that the lime water (or soluble lime in the water) would furnish an infinite abundance for all the wants of the plant itself. *Second.* We have analyzed many soils from various localities, and studied the analyses of hundreds of others, and we never yet knew of an otherwise good soil, which did not show enough lime in its composition, to supply the (supposed) needed quantity of lime for any crop. [We will add here, that for good and sufficient reasons, reasons as yet unanswered, we hold as unsubstantiated theory, the present scientific teachings that a certain definite quantity of particular mineral elements are essential to the perfect growth of plants.]

What is the use of lime applied to a soil then? We answer, lime acts only secondarily, as a promotion of certain changes in the elements of the soil. When lime is burned, its carbonic acid is expelled, and it is then a caustic alkali, in a finely divided condition for being intimately mixed with the soil. It is then eager (has a strong affirnity) to unite with other elements, especially with the acid or sour elements in the soil. Applied to soils in this caustic condition, its action is threefold.

First—Most soils contain more or less of vegetable acids. They are to some degree sour. The caustic or burned lime when added, *neutralizes* or destroys these acids, and sweetens, as we say, the soil, rendering it more congenial to growing plants. This effect is just as great upon many soils already filled with *uncaustic* lime-stone or lime unburned, as upon those having little or no lime.

Second—Caustic lime dissolves a species of asphaltic coating formed upon vegetable matter in soils, and exposes the inner texture to the action of air which decomposes it and prepares it to enter into the roots of plants as nourishment.

Third—Vegetable matters, when decaying or decomposing, yield a certain amount of compound substances, among which is carbonic acid, which unites readily with such alkalies as caustic lime, potash, etc. Now, it is a law of chemistry that a compound will be more readily produced, when there is present another substance for which the new compound has an affinity. Therefore, the bare presence of caustic lime in a soil hastens the decomposition of the vegetable matters, and they more readily yield their elements to nourish growing plants.

From the above considerations we may derive a few simple rules for the application of lime, premising the remark, that while close observation and thought will assist in determining this matter, yet the multitude can only judge by *trial* when lime is useful and when not so

SUGGESTIVE RULES FOR APPLYING LIME.

1. It is desirable that lime should be as nearly caustic (recently burned) as possible. The effect of burning is merely to drive off its combined carbonic acid, and the longer the lime is exposed after burning, the greater is the amount of carbonic acid returned to it by the air.

2. Lime should be finely divided (water slaked), that it may be mingled as thoroughly as possible with the soil.

3. Lime acts comparatively the most beneficially upon such crops as are most sensitive to vegetable acids or sour substances in soils. An example of this is found in potatoes, which are usually benefitted by lime.

4. Wet, cold lands are most subject to be impregnated with sour substances, and undecomposed vegetable matter; hence, wet soils are most likely to be benefitted by an application of lime.

5. Clays, and compact soils generally, admit air less freely than light porous soils, and the former therefore contain larger proportions of undecomposed vegetable matter. Lime benefits these by assisting to decompose such substances, and fit them for plant nourishment.

6. The great majority of even light soils contain *some* undecayed matter, and even on the most sandy ones a small quantity of lime will be temporarily beneficial.

7. On light soils, the effect of lime is most needed *below* the surface, where the air has not penetrated freely. On heavy or wet soils it is needed near the surface also.

8. It is usually best to apply the lime at the time of or just before putting in crops, that they may get the full benefit of its action, which begins immediately.

9. On light, warm soils, too much lime will decompose the vegetable matter faster than needed, and there will be a waste. Continued free application of lime will decompose all the vegetable matter in such soils, and leave them comparatively barren. Such soils are said to be "lime-sick."

10. An annual application of lime is better than a less frequent supply of a larger quantity, since in the former case its action is more continuous upon the successive crops.

11. On many light warm soils, where the vegetable matter is decomposed by air and sun, lime will be injurious rather than beneficial.

12. The heavier and wetter the soil, the greater will be the quantity of lime which may be useful. A yearly application of lime may vary from 4 to 30 bushels per acre, just according to the condition of the soil.

13. Lime may be tried with good prospect of utility upon sour muck land—swamps and wet prairie lands are of this character.

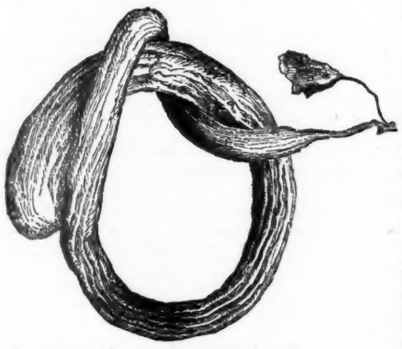
14. Lime may be sown broadcast on the surface, as a top-dressing; or it may be added to the hill. Uusually the best method is to sow it upon the surface before planting or seeding, and then harrow it in well.

15. Lime, and potash (which abounds in unleached wood ashes) are both caustic alkalies, and act very similarly. The potash is superior to lime from the fact that it is more soluble, and it therefore becomes more uniformly diffused through the soil. Lime is, however, generally to be chosen on account of its comparative cheapness.

"It is said" that the woman who undertook to scour the woods has given it up in consequence of the high price of soap. She is now skimming the seas.

Farmers a Benevolent Class.

The Mayor of a city in a South-western State, in a business letter remitting subscriptions for the *Agriculturist* adds: "Although it is nearly thirteen years since I turned out my team in the field (in Jefferson County, N. Y., where I was raised a farmer,) and left the old plow to be managed by other and perhaps more skillful hands, I still long for a sight at that old favorite home, where was wont to sparkle at this season of the year a bright blazing fire, which none other know how to enjoy like the thrifty farmer and his household. And here allow me to thank you for your truly valuable journal. I say *truly valuable*, for so it will prove to every intelligent man who carefully and thoughtfully peruses its well stored columns. I have yet a lively interest in every improvement calculated to benefit the industrious farmer, and enhance the value of his labor. His honest and respectable calling renders him not only the most happy and independent of all classes; but he is an *ornament* to society, and a useful member of the community in which he lives; for *he* has a heart to feel, and a hand ever ready to relieve the sufferings of his fellow beings, who perchance, have been less fortunate than himself. His sleigh carries wheat and wood to the widow, and his flocks clothe her orphan children. I really believe that in the great day of accounts, when that innumerable host of Good Samaritans shall come forth to receive their just rewards, it will be found that a large proportion of the throng have been *farmers*, tillers of the soil, whose silent unseen acts of charity have not been heralded on earth; and to them it shall be said: "Well done.. in as much as ye did it unto one of the least of these of my brethren, ye did it unto me".....Indeed it is to this worthy class, the farmers, that our country is indebted for its wealth, and the exalted position it now occupies among the nations of the earth."



"Snake Cucumber."

Mr. David D. Prettyman, of Portland, Oregon Territory, sends us a *photograph* of what he calls a "Snake Cucumber," and which he considers a curiosity. The above engraving is as near a representation as we can make of it, the photographic picture having become partially dimmed on its long voyage. He describes it to be 31½ inches in length, and only a little over one inch in diameter at its largest part. It grew in a coil, just as here shown. We have no further particulars as to whether it is a native, wild variety or some old kind, which has taken a sportive form in its new locality. We are also not informed whether all the cucumbers on the same vine grew in this manner, nor whether it has edible value. We thank Mr. P. for the trouble he took to procure and forward the accurate picture.

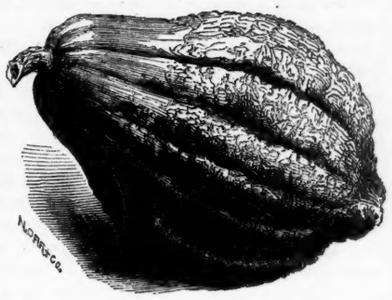


Fig. 1.

The Hubbard Squash.

Recently not a little interest has been excited in various parts of the country, in reference to the Hubbard Squash. Cuts of it, all apparently from duplicates of the same engraving (with a single exception) have appeared in many of the agricultural papers; while the uniformity in the *descriptions* indicates that these also have mainly originated from one source. But though we have heard these facts urged against its claims, the objections are hardly tenable, for we hold that if any man has a good thing, it is his duty, aside from his own interest, to disseminate it as widely as possible by all fair means. It usually or often happens that a really valuable article only becomes known under the stimulus of personal interest. It is the duty of the public, however, to examine into the character of the evidence where it is mainly confined to individual testimony. We were at first disposed to give this new candidate to public favor, the Hubbard Squash, a conveniently "wide berth," until its claims were more generally tested. Recently, however, we have received from a few subscribers in different parts of the country, very strong commendations of it, and we believe they have spoken from personal knowledge.

A friend in Maine sent us a specimen, which he assured us was of the purest quality, and we have prepared the accompanying engravings from it—*fig.* 1, to illustrate its general outward appearance, and *fig.* 2, to show its internal structure, thickness of flesh, etc. (We suggest that this plan of showing the *internal* structure of vegetable productions should be generally adopted, just as has been hitherto done with fruits.)

The color is a dull, dark green. The skin is thick and hard, as much so as that of a Summer Squash. It is also closely covered with knots, or warty protuberances not very prominent.

This specimen became a little wilted while lying cut open at the Artist's for two or three days, but when cooked, it proved sufficiently good to warrant us in giving it a high commendation for flavor, fine grain and solidity. We have since received fresh specimens from other sources, varying a trifle only in size, form and color from the one here illustrated. On trial, both by boiling and baking, they gave good satisfaction, and we will not contest the claim that this variety is superior in quality and flavor, to even our old and long tried favorite, the Boston Marrow Squash. Two correspondents in Maine, one in New-Hampshire, two in Massachusetts, and two or three elsewhere have assured us that it is a much better "keeper" than the Boston Marrow or any other variety they have known. One or two have stated that it answers well also for a Summer Squash.

If with these qualities, it proves also to be as good a producer in various parts of the country, as some of its predecessors, it will deserve the highest rank. The seed will be somewhat scattered the present Spring, and the coming season will afford ample opportunity to test all these claims. The seed is not abundant enough to warrant us in placing it in our list for *general* distribution. (That list is indeed already inconveniently large).

Of the origin and history of the Hubbard Squash we know nothing beyond what we find in the advertising circular of Mr. Gregory, who last season cultivated it somewhat largely for the seed. He says: "The first specimen was introduced into Marblehead, Mass., over forty years ago, and its cultivation was probably confined to a single individual for upwards of twenty years. About fifteen years since, we received seed from Mrs. Elizabeth Hubbard, (after whom I eventually named it),and have continued its cultivation to this date...."

It is a little singular that a vegetable with so valuable claims, should have remained so long confined to a single locality. This has, however, been the case with some excellent varieties of

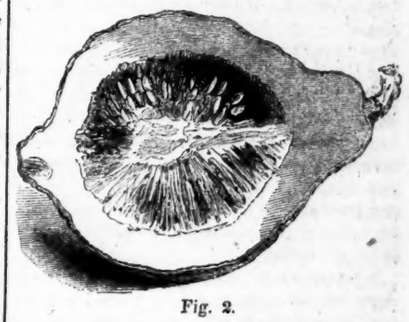


Fig. 2.

pears, apples, etc., and we might add, (though not for a depreciating comparison) with the *Dioscorea Batatas* or Chinese Yam, which is reputed to have fed the millions of China from time immemorial, but was never heard of elsewhere until recently.

Written for the American Agriculturist.—Prize Articles

The Dairy.....III.

MODES OF FEEDING, ETC.

Whether for the butter, or cheese dairy, the proper way of feeding and treating the cow is alike essential; and as, in discussing the subject, we must begin at one end of the season, or the other, we will commence in the Spring, when the cows are first turned to grass. In doing this, we shall premise that the last fall's pasture has not been gnawed to the bare sod; but that when the first snow had fallen, or the severe frosts had warned the dairyman that his cows required winter shelter and stable food, the pastures had yet left, upon some portions of them, considerable grass, which although frost bitten, would still longer afford more or less nourishment. In the long and sunny days of spring, while yet too early to turn out to the pastures "for good," the cows are apt to either lie restless in their stalls, or wander about the barn yards, uneasy to get again to the ground for a taste of the new, or a bite of the last year's grass, which to them is a grateful change for the appetite, although of little account in the way of nutriment. Therefore, after receiving their accustomed morning's hay, and whatever additional, if any thing, is given them, it is a good plan to turn them out for a few hours' forage on the turf, if the pastures are sufficiently dry, so that they will not suffer from the treading of their feet. They will remain longer or shorter, as the weather or what they may find in the way of food will tempt them—and without particular injury to the young grass

now beginning to spring up; and so long as they will eat hay with an appetite, they should be regularly fed, night and morning, as in mid-winter.

At this time, from the middle of April to the middle of May, or even to the first of June, as climate, soil, position, and the earliness or lateness of the season may govern, the dairy cows will have produced the most of their calves, and are in fresh milk, and from the day that they get their noses to the ground they will gain in milk both morning and evening. This shows that exercise, and change of food, even if they get but a trifle from the pastures, are good for them. By thus early turning them out, they also gradually become accustomed to the change from dry to green forage, without that sudden looseness in the bowels which usually affects them when suddenly turned from the stables and hay, on to the pastures with the first "washy" growth of the young grass. There need be no fear of their hurting the permanent growth of the spring grass by such usage, beyond what the increase of milk, and the butter or cheese made from it, will pay for. It is all made up in the dairy product. When the cow can get her full bite of grass she will refuse hay any longer, and except in severely cold rains, may then be turned again to the pasture after milking, or herded in the barn-yard.

CHANGE OF PASTURES—THEIR PERMANENCY.

On this subject there are different opinions, to some extent, but we believe the experience of our most successful dairymen is against it. We will state the two propositions. The advocates of change say: *Fresh* pastures are *clean;* the grass is even, full, and vigorous—therefore, most nutritious. A pasture long run over, becomes soiled from the treading and droppings, and lying down of the cows upon it. A better flow of milk follows a change into a new pasture, over a continuance on the old one, and it is more economical. Turned off from a closely fed pasture, the rains bring it up anew, and in a few days or weeks it is ready for the cows again, while the one last fed again grows to supply its place when that is exhausted. On the other side, it is said: No considerable extent of pasture land is commonly found on a proper dairy farm but what contains inequalities of surface, where the different varieties of grass grow more or less unequally, according to the character of the surface, the difference in soil, or other circumstances beyond the immediate control of the farmer. The cows, ranging at will over the whole extent of the field, select such varieties of the grass as in different parts of the day are most agreeable to their appetites, and they will feed, in the course of the day, upon each, and all, as their inclination may crave. In short, like men, they like variety in food. Besides this, they no more tramp, or soil the grass than when in a more restricted enclosure; the rains wash and clean the grass in one, as well as in the other; therefore, there is no more loss of grass on that account than in the shifting system. The grass grows stronger as the season advances, the sap in it is more matured, and a less quantity serves a better purpose—that is, if it produces less milk in quantity, its superior quality gives more butter and more cheese. The cow is kept in uniform condition of the bowels, while the flashy fresh grass frequently sets her to scouring, thus doing her positive injury, and frequently lessening instead of increasing the quantity, while it surely depreciates the quality of her milk. That in the permanent pasture, although the cow may neglect considerable portions of the grass, for weeks together, she will return to it in some part of the season and feed it down alike with that which at another part of the Summer she most preferred. In short, the pasture is uniform, and taking the season altogether, it is most profitable. It may be added, also, from our own experience of many years, that a cow is more contented in an accustomed range where she is, every day, alike at home. Turn a herd of cows into a new field, and if not exceedingly hungry, the first thing they do is to range over the whole extent of it, to find out what there is about it, and they do not content themselves to quiet, sober feeding until they know the entire breadth, and length, the springs, and water courses, or whatever comprises its chief features, and character.

On a very considerable stock farm, we have a range of about three hundred acres of pasture land, although a very considerable portion of it is as well adapted to mowing and grain cropping of different kinds, as to pasturage. In this great field we turn our cattle of all sorts, sheep, and horses. Yet if kept exclusively for dairy purposes, the sheep and horses should be excluded. On two sides of it is a large water-course, and one side a narrow strip of marsh land, which is not drainable, from a want of sufficient elevation above the water-course, and on which grows a species of rank coarse water-grass of several varieties. On another portion, which is a sort of second bottom, there grow red-top, and other lowland grasses. In a scattered grove of old woods, are still other varieties of grass; while a large majority of the whole field is closely stocked with bluegrass, white clover, timothy, red clover, and June grass, with a few other minor varieties. The sheep and horses usually confine their feeding to the upland, shorter grasses, but the cows almost invariably range over the whole, *every day,* throughout the feeding season, and eat more or less of each variety in turn—not with strict *regularity,* to be sure, but with *certainty.* And so they continue throughout the season, until the frosts kill and make worthless the marsh grasses, when they reject them; and when the close of the season arrives, the pasture is pretty much all fed off alike. The weight of our experience and observation is in favor of the *permanent* summer-pasture, for dairy purposes.

EXTRA SUMMER FEEDING.

This must depend measurably on the position of the dairy-farm, the prices of its products, and somewhat on the season—droughts making it sometimes absolutely necessary—although it is happily so ordered in the meteorological features of our best dairy-lands, that they are, as a rule, less subject to extremes of drought and excessive rains, than our grain or stock-grazing lands, by reason of their higher altitude, and more rolling or hilly surfaces. We believe the *best possible* food for producing the best butter and cheese, is white clover and bluegrass, mainly, with the other grasses peculiar to our dairy-lands intermixed; and *enough* of such food throughout the dairy-season will supply the cow with all the nutriment required for the most profitable result. Yet, high prices of butter and cheese often tempt the dairyman to buy considerable quantities of corn meal, and "mill feed" to increase the quantity of his milk, and to cultivate crops of green clover, oats, and drilled corn for cutting and feeding in a season of protracted drought. All these are timely precautions with a thrifty dairyman, but not usually practiced. The whey is in many instances fed to cows instead of to hogs, as making a better return in the way of cheese, than in pork, and we have known instances where the cheese product has been increased from the common average of 350 or 400 pounds per season to 500 pounds and upwards by the use of these extra foods. Of all this, however, the dairyman must be the judge, as his particular circumstances may for the time determine.

WATER.

This indispensable article the cow should have—always, at will, immediate, and frequent. She is capricious in the want and in the use of it, and should have it accessible, and of a pure and good quality. Bad and filthy water can not produce good dairy-milk; and although the cow will frequently drink out of a stagnant, green, warm, and filthy puddle, she takes it medicinally, and not as her usual beverage. *Pure* water is her choice, however, and therefore she should have it in constant supply. Having large cisterns to our own main barn, during summer in a long space between rains, it sometimes becomes dark colored and brackish, sowewhat like bilge water, and we usually pump more or less of it into the troughs every day, and have frequently known the cows to come up at evening from the pastures, where they had the purest of water at will, and go to their troughs, and fill themselves almost to bursting with the noisome stuff, which it would make a man sick to drink, and they seemed to be all the better for it. But these are exceptions to the general rule.

SALTING.

This should be done weekly and regularly, and the quantity a gill to half a pint for each cow. The best way is to lay it on the clean grass, in piles a few feet apart, or in troughs, where each one can get her own proper rations. *We* usually place it in the mangers, where the cows are night and morning secured for milking.

EXTENT OF PASTURE LAND TO EACH COW.

Lands vary so much in quality that this must be measurably left to the experience and judgment of the dairyman himself. One and a half acres on some farms, will pasture a cow well through the summer, in an ordinary season, while three acres will be required on others. For profit, dairy-pasture should never be overstocked. The grass should always afford a full bite. The less labor a cow has to perform to fill herself, so that she can lie down and chew her cud in quiet, the more and better milk will she give. We say, an "ordinary season." That is the rule to calculate upon. Droughty seasons are extraordinary, and as we do not know when they are to occur, they must be met as best they can, and provided for accordingly, if possible. If not, of course the dairy products must suffer. The extra foods we have spoken of may then afford a timely and profitable supply. Generous food to the cow gives a generous return in milk. Pinch the cow in her feeding, and she pinches you in her milk. An equivalent for one, is sure to be returned in like way for the other.

In all that we have said on the subjects of this article, no positive or fixed rule can be laid down to govern every dairyman alike. He must possess a judgment, and have an experience of his own, with which to govern his action; but the main drift of our directions are to be heeded, if he expects to achieve the highest amount of success in his endeavors.

The Breeding In-and-In Discussion.

Those of our readers interested in stock raising especially, and indeed most others will be particularly entertained with the articles on In-and In, or *close* Breeding, the third of which will be found on the next page. The subject is one of importance, and the two writers who are discussing it in these columns are, without doubt, the

ablest writers in this country on this particular topic. They have both been breeders of blooded stock for a quarter of a century or more, we believe.

Look well after the Farm Stock.

As the Winter wanes, the farm stock requires all our attention. If they have been well looked after thus far, they are in good condition, of course. In the coldest weather the coarse fodder can be most economically fed out, and the stock will readily eat what, in soft weather, they would reject or but barely taste. We believe in stable or shed feeding, mainly, but on most farms there is always a certain amount of rough fodder that is quite as well to be fed outside in the open yards or in the fields; and it should be done where the ground is either frozen, or covered with snow. Cattle may be even driven out, and fed at field stacks, in some cases to advantage, but not exposed to driving winds, or heavy storms. In such times they should *always* be sheltered, if possible.

Milch-cows should now be looked after, and kept warm and comfortable at night, with plenty of sweet hay, and warm bedding. Calves, lambs, and colts should be well sheltered, watched in their food, to see that each gets its proper share and rations. If you have a weakly one, or an underling that the rest are running over, look to it, and separate it from the others, that it may not get poor and weak, and lose its hide before Spring. A few roots nicely cut up, a little oats or meal will revive a pining thing wonderfully. "Murrain" skins are not half so saleable at the tanner's, as those from healthy, fatted animals, and the carcasses are good for nothing but crow's or dog's meat; crows and dogs can be fed cheaper, if "they must live;"—though "we see no necessity for that," as Samuel Johnson, L.L.D., told the thief who stole his herrings, and answered, as an apology, that he "must live." There is an adage that runs, "Well summered is half wintered," and "Well wintered is half summered." It is a wise saying, which we devoutly believe, and if more farmers practiced upon it there would be a great deal more wealth in the farming world than now.

Breeding In-and-In.

BY A CATTLE BREEDER.—NO. II.

Mr. Cassius M. Clay, in the February number, rejoins to my article in the January *Agriculturist*. After saying what I did then, I intended to follow with some remarks on the Collings system of breeding Short-Horn cattle; also on the practice of various eminent breeders since, as Bates, the Booths, and others. I shall come to them before I get through; but as Mr. Clay has classified his arguments in condemnation of this system, for convenience I will follow him in answer. I wish, however, to make this saving remark: I do not advocate the breeding in-and-in in *all* cases, and do not recommend others to do so at all, except under circumstances of *perfect health and condition* of the animals proposed to be so bred; and in observance of such principles, I quoted the examples of the celebrated breeders I named. Let us look at Mr. Clay's line of argument against close or in-and-in breeding. He condemns it

1st, from "*analogy*." The Divine law, as expounded by Moses, forbade the Jews from intermarrying within certain degrees of blood relation. Why, we are not altogether given to understand, but we may presume one of the principal reasons was to preserve and promote the decencies and proprieties of life. *Physical* considerations no doubt influenced the restrictions laid down by Moses, to some extent: for it is well known by every physiologist, that diseases run in certain families from one generation to another, arising, perhaps, from accident at first, but becoming chronic in the system, they were susceptible of perpetuation through a *similarity* of blood, of constitution, sympathy, and bodily habit, nervous sensibilities, and other subtle influences not always visible to the eye or understanding. The Jews, also, had a "mission" before them—being a warlike people, and demanding great bodily health and energy in action. Yet I deny the similarity of the premises which Mr. Clay institutes between the breeding of men and the breeding of brutes; the "analogy" is widely different in the two subjects. *Man* has an organization of brain, reasoning faculties, sensibilities, sympathies, nervous temperament, and other affections, *added* to the animal instincts and passions, all of which more or less affect the procreative and gestative functions and powers, and exert a wide influence on his progeny. It is unnecessary to go into this further, as physiologists and medical men have taught it all from time immemorial. *Brutes* have instincts and passions alone, without the human attributes which I have named. Their physical organization is ruder and coarser, less complex and intricate. They subsist on simpler foods, fewer in number, and prepared only as nature produces them. Therefore "analogy" to the human race in close breeding bears little or no relation to that of the brute creation.

Let us, however, look even at the human family, divested of our prejudices, education, and refinements. Let us take the Bible for authority, as it is quite evident we have none better at hand. Out of Adam's side, Eve was formed, and she bore children to Adam. "In-and-in breeding," that was, to a certainty. They had sons and daughters, who must have intermarried; and in process of time a very considerable territory became peopled by their issue. We hear of no "laws" against close intermarriages in those days, nor of idiots or imbeciles arising from relationship in parents. When Noah, his sons, and their wives, went out of the ark—the only living humanities on the face of the earth—close alliances must of necessity have been practiced for some generations at least, and from them strong physical families, tribes, and nations sprung. From an incest sprang Moab and Ammon, strong men. They resulted also from a drunken revel—the worst possible condition according to our modern theories. From them sprung the Moabites and Ammonites, who grew to be powerful people. We hear of no adverse *physical* results from these descents.

Leaving the Bible, let us consult the comparatively more modern, but still to us ancient nations. In Greece and in Rome it was common for men, even in the highest walks of life, to commingle with their own offspring, and the children of the same parents often intermarried—revolting indeed and abominable in our eyes. Yet in many of the qualities of learning, law, and civilization, those nations were exalted beyond all others cotemporary with them. There may have been fools and imbeciles also, though we do not hear of them—but great men sprung from those close relationships, and such practices were not considered by the people of those nations at all as we consider them. I speak only of *fact*, not propriety, morality, or right, in the matter.

In the present day, suppose, for example, that two children of a family, born of healthy, robust parents, should be separated from their birth, never knowing each other as relatives, and that by accident, in after life, at proper age, they should intermarry. Does any one suppose that *their* children would be less endowed with sound faculties of body or mind than the children of others, having no known relationship? Or, nearer, if you please, suppose the same thing should happen between parents and their own offspring. Such things have been, in the annals of history, without remark of either idiocy or imbecility. Education, and reasoning, and the laws of society, as well as Divine instruction have taught us, that all such practice is wrong, and we condemn it. But aside from the mental and nervous affections of humanity, we have no proof that the simply *animal physical functions* of man would be deranged by the practice.

Brains are the chief desirable endowment, and the results of brain activity and creation, are considered the great objects of *human* life. Physical strength and *health* are also important; but who thinks of rearing up man for obesity, to take on fat, like oxen, or swine? The legislature of Georgia, in their new found wisdom may, as Mr. Clay remarks, enact laws against the intermarriage of cousins, with the result, in all probability, that when cousins wish to intermarry, they will quietly pass over the state line of Georgia, and do their marrying, instead of at home; and that is all there will be of it. By what statistical tables do the Solons of Georgia know that more imbeciles are produced from cousins than from those who are not cousins. There is no well authenticated proof from public or private lunatic, deaf and dumb, idiot, or other asylums for unfortunates, that the children of cousins contribute larger numbers, in proportion, than others, to fill those institutions. Understand, I still speak of *facts*, not as advocating the practice of such close connections in marriage. But enough on this head, my readers will get at the drift of my meaning.

In all of this previous remark it is to be understood that the parties in this close breeding, whether man or brute, have been free from *constitutional* diseases, or sympathetic ailments, acting on a common organization, and free from mental or bodily infirmity. Yet infirmities, mental or physical, in close blood relations, or *in strangers as well*, will descend in the offspring with more or less certainty, as circumstances may determine; or, if healthy, they may exist in their offspring, produced by accidental influences, beyond the control of the parents, or at the time even beyond their knowledge in themselves, perhaps. Yet, Mr. Clay says, "that man, outside of mental and sentimental phenomena is governed by the same physical laws as *other* animals;" or, in other (and my own) words: make men *savages*, and they are like *other* brutes. That I grant; and for the *animal* development, simply, I will yield him more than he claims.

Marrying cousins is "in-and-in breeding," of course; and I will take the late and present royal families of England as examples—the Guelphs, not the Stuarts, for they were French. The first and second Georges were intensely German. Their maternal origin, far away back, was English—Scotch, rather—but the English blood had been mostly bred out, and the third George, although fourth in direct descent, was almost wholly German, *the descendant of generations of cousins*, and even those cousins closely interbred. This third George married a cousin, a German, with no *brains* to spare on either side, but physically both well developed persons. English roast-beef and plum-pudding had done its best on George, and German

sauerkrout and lager-beer on Charlotte—a pair of well fed, able bodied people. They had thirteen children, *physically* as fine a family, probably, as existed in England. They grew up well developed specimens of humanity, sons and daughters *alike*, perfect in *animal* faculty—their superfluity of brains interposing no bar to *physical* maturity. True, idleness, dissipation, and unbounded indulgence spoiled their animal faculties in time, as such influences, unchecked, would spoil any body, until by a fortunate marriage of one of the sons —the Duke of Kent—with another German cousin, the present sensible, sound and healthy queen sprung; and she, by a marriage with still another German cousin, is likely to people her various palaces with a progeny as numerous, if not as physically stalwart, as those of her domestic old grandmother Charlotte. Mr. Clay's "analogy" does not work well in *this* case, and a stronger one I can not bring to mind against myself, and in his favor, arising from the exceedingly artificial life of the examples. We both believe in good keep, and good care in animals, as well as in men and women. I now come to Mr. Clay's argument:

2d. "*Experience.*" "The in-and-in theory rejects selection." Not at all, as I stated it; but on the other hand, as practiced by good and successful breeders, it demands the very nicest selection. Its rules are: *perfect health, sound constitution, with the very best animal organization to be found.* With such specimens, breed them together, let the blood relation be what it may, and perfection or as near its attainment as possible, is the result. Mr. Clay mistakes my meaning when he understands me to say that *commonly*, men breed indiscriminately. I only allude to those who breed "common" stock of any kind, not "blood" animals. I am well aware that breeders of *choice* animals *do* select, and select closely, *out* of the line of in-and-in breeding; yet it may oftentimes occur that they could breed still better animals, if, when possessed of superior sires and dams, they would breed them together longer and closer than they do. For instance, when the Scioto Valley Cattle Company brought out their first importation of Short-Horns, in the year 1834, among which were four or five very fine animals, strongly *in-bred* with Mr. Bates' celebrated "Duchess" blood, would not that company have done much better to have bred that blood closely in-and-in for a while—the bulls and cows together —instead of crossing their cows which possessed it with the coarser and less highly bred bulls they bought of Whittaker and others? I have no doubt of it; for so strong was that "Duchess" blood, and so tenaciously did its appearance descend in the produce, that animals in the third and fourth generation of "out-and-out" breeding have been readily detected by persons familiar with that blood in Mr. Bates' hands, without any knowledge of *how* they were bred since imported, although these descendants were from inferior crosses of other bulls, in every instance, and not equal in quality to the originals. The very beauty of the system of in-and-in breeding, when strictly followed, is the *compactness* and *point* in which the good blood is concentrated in the beast, giving him, or her, the power to impart it strongly into their offspring. I admit, with Mr. Clay, that people commonly *think* "they select the best calf, pig, or colt for breeding," *according to their own rule of judgment;* but in "nine cases out of ten what is that *judgment* good for?" We shall not differ in this conclusion, I fancy.

3d. "*Special proof.*" When Mr. Clay tells us "the Campbells are coming" with their enormous hogs to the Cincinnati markets, "*which have never been beaten,*" the assertion is too vague. I want to know *what* beats; whether it be *size* alone, quality of meat, and cheapness in producing it, or what standard of excellence predominates. The position is not sufficiently defined to need further remark from me, and unexplained, it must go for nothing.

4th. "*False proof.*" I will explain to Mr. Clay that, by "a late day," I mean *yesterday*, or *last year*, if he pleases. I do not admit that the "studbook" breeders "*have* changed their practice." If he is "not familiar" with those volumes, as he says, I commend him to their study, and he will see *how* many of the celebrated English blood horses have been bred. As to the Kentucky horses, I will not dispute him, for I am willing to admit, with the old Kentucky field preacher, when at a camp-meeting, and exhorting his audience to a better life, he told them that their reward would be in a future world "which in beauty and luxuriance approached nearer to 'Old Kentucky,' than any other illustration of bliss, he could give!" In that unsurpassed valley of some sixty by forty miles in area, of which Lexington is near the geographical centre, where, on its luxuriant soil, blue-grass pastures, race-horses, and short-horn cattle are permanent institutions, and "fair women and brave men" abound, they can and do perform almost anything in the horse line; but, Kentucky does not comprise *all* the world—even in "making the best time." I have a word to say in my next as to the "in-and-in" blood of some of the "Kentucky horses."

But, Mr. Editor, I have already exhausted more space than I fear you can spare; and as Mr. Clay's further arguments bring me to the point where I left off in January, I may ask permission of you to reply further in a future number.

Hamburg Fowls.

The family of Hamburg fowls are quite numerous. They have as many names as the Spanish Don, who knocked at the cottage-door to ask for a night's lodging. "Who is there? What do you want?" said the inmates. "Don Juan Jose Pedro Antonio Carlos Jeromio, etc., etc., wants to sleep here to-night." "Get along with you," was the reply, "how should we find room here for so many fellows?" The Hamburg fowl is in the same position as the Spanish Don. They have such names as: the Silver and Golden Penciled, Silver and Golden Spangled, Golden and Silver Pheasant, Coral, Chittipratts, Creoles, Bolton Greys, Bolton Bays, Penciled Dutch, Dutch every day layers, Everlasting layers, etc., etc. They are called Creole from their intermixture of the black and white; Bolton Greys from their being extensively cultivated in and about Bolton, a town of that name in England. Why they are called Coral, it is difficult to say, unless it is on account of the numerous points of the polished, bright scarlet rose-comb, which bear no distinct resemblance to grains of red coral; Penciled Dutch, because many are imported from Holland. They are known in various localities as Pheasant fowls, from the resemblance of their spangled feathers, especially in the case of some of the hens, to those of the cock pheasant; Dutch every day layers, Everlasting layers, etc., for their great productiveness as layers.

The Hamburg fowls, when pure bred, are commonly looked upon as "everlasting layers." The term "everlasting" receives its name from the circumstance, that if properly fed and kept in a warm situation, and protected against cold, they will continue to lay throughout the whole of the year, or nearly so, and thus afford an unfailing supply of eggs. Fowls in general, after laying for a certain length of time, become "broody"—they cease to lay, and evince an uncontrollable desire, an instinctive propensity to devote themselves to the task of incubation; but in the present breed, in which the season of laying is preternaturally lengthened out, or is almost continuous from Spring to Spring, (excepting the time of moulting), this natural desire is greatly weakened, or indeed altogether subdued. The hen betrays but little anxiety to incubate, and continues to lay eggs as if for no other purpose than to repay her keeper. It is not often that the pure "everlasting laying" fowls are to be found, and this renders it the more desirable that those who possess the true breeds, should sedulously preserve them from admixture; a cross will generally spoil the hens as "everlasting layers," without rendering them enduring, patient sitters.

As layers, they are fully entitled to rank among the best egg-producers. The hens, if young, continue to lay nearly throughout the year, but the eggs, which are white, are small, weighing only 1½ ounces each. As they are such abundant layers, they have no time, or seldom want to sit. So rare is it for them to desire to do so, that all authorities I have consulted, say they never want to sit, consequently other hens have to be resorted to for hatching their chicks, and perpetuating their race. The hens to which their eggs are to be confided, should be some light active breed; none being more suitable for that purpose than a game hen.

At from five to six months old they are fit for table use, and though small, their bones being formed in the same proportion, they yield a fair quantity of white, tender, and well flavored meat. Their cost of food would be that of the smaller fowls generally; this would allow liberal feeding when given in addition to a good run, but as they are rather impatient of restraint, and have a roaming disposition, they are too often left to cater for themselves.

Both sexes continue to improve in appearance after each molt, until they are three years old. Birds one year old have never attained their perfect beauty; this is especially apparent in the more ample development of the tail feathers of the cock, as he becomes older.

The Golden Spangled Hamburg cock, (which is portrayed in the engraving presented herewith), is a perfectly beautiful bird; nothing but a full sized drawing, colored, can give an adequate idea of the extremely rich coloring and brilliant lustre of his plumage. The hen displays the peculiar markings much more distinctly than her lord. The ground color is a buff yellow, bay, or maroon, and the feathers marked at the tips with a black crescent or horse-shoe shape—when the spangles are of the crescent form, the plumage may have a gayer and lighter aspect, but when the spangle is oval or circular, the plumage is richer to the eye.

The Hamburg cock is distinguished by a large, fully developed rose-comb, about 1½ inch broad, with points of uniform lengths, and a pike reaching far back, the point turning upward; wattles large, rounded, and like the comb, of an intense red; ear lobes white and large; hackle a rich copper, with black markings, though in some of the best specimens, both hackle or saddle feathers are rounded, and have the perfect spangle at their extremity; wings barred by the spangle of their coverts; breast and back of the same coppery hue, deeply spangled; thighs and lower part of the body nearly black; tail full, erect, and bronzed throughout; legs and feet blue or lead color, and perfectly clean; nails white. They stand about 19 inches high; and weigh on an average 5½ pounds.

The hen has a small rose-comb, shaped like that of the cock; earlobes white; with her body, the lower part alone excepted, spangled. Her tail is full, and should be tipped with black, like that of the Sebright Bantam. Hight about 16 inches, and weighs about 4½ pounds.

Such in particular are the colors of the Golden Spangled Hamburgs; but we must not pass them by without some further encomiums on the extreme brilliancy of their feather, from its rich combination of glossy hues. Their plumage is also compact and close, and in good specimens the female bird attains a depth of tone, seldom surpassed throughout the poultry-yard. The only comparison that does it justice may be found in the "bloom" of a thorough-bred bay-horse in racing condition. C. N. BEMENT.

Springside, Po'keepsie, 1859.

Our Poultry.

In many even of the more northern sections of the country where our paper circulates, the sunny days are warming up the procreative habits of these universal attendants of the farm yard, and inviting our attention to their annual necessities of provision for laying their eggs, and the prospective increase of their various families. The geese begin to squaak, and joyfully flap their wings, and wash themselves in the puddles of thawed ice, and snow, or the now open water courses; the ducks waddle about in a new joy, their eyes turned up to the sun, and quacking in garrulous nonsense each to his companion; the turkeys gobble and strut about the yard with a wonderful self appreciation of importance among their weak and timid inferiors; the motherly, domestic hen clucks about in her leisurely satisfaction at "the good time coming," while the lofty chanticleer flaps his wings on the nearest fence, or woodpile, in all the consciousness of prowess and security, as "cock of the walk." The pigeons, too, dart out of their neighboring cote, and take distant, and upward flights as if to survey the state of the weather, and anon return with each a straw in its mouth, as if the time of immediate incubation were approaching. It is indeed a happy, cheery time with the feathered family, all around.

Now, let the several apartments be got in readiness for the approaching season. Give the geese separate boxes for nests, as they are the earliest layers; fix up the hen house, and clean out the nesting places; feed them all generously, for good strong eggs can not be made out of nothing, nor vigorous young goslings, ducks, and other poultry produced from poor keeping of the parents. *Keep them all at home.* Do not let them wander off into the fields and bye-places to nest and lose their eggs, but look well after, and secure them before they get chilled beyond the power of hatching. A few early chickens, too, will pay for some extra trouble. Indeed, every branch of the poultry establishment will compensate for close looking to, and feeding. The "old folks," women, and larger children can do all this, and the farming time not be intruded on for such purposes. Our remarks will apply just as well to April, where later seasons prevail. So, don't forget it *then*, because it is March *now*.

For the American Agriculturist.

My Second Year's Experience in Chicken Culture

Contrasts unfavorably with my first. On referring to the *Agriculturist* for March, 1858, I find that during the previous year, from fifteen hens, I received an aggregate of 1888 eggs, and raised 106 chickens, at an expense not exceeding $32, while their value amounted to $63 60. On the 1st of February, 1858, my fowls numbered 52, of which 47 were hens, (ten were beheaded before the 1st of May,) and the eggs laid during the year ending with the 31st of January, 1859, have been only 3436, in the following order, viz:

Feb	163	June	415	Oct	229
March	485	July	242	Nov	128
April	621	August	226	Dec	38!
May	531	Sept	207	Jan	151

Of the above, 221 were "set," from which 161 chickens were hatched, and 150 raised full grown, besides a December brood not counted in; so that after the chickens were hatched, I cannot complain of my rearing department, all the deaths having occurred from external accidents. Their feed consisted of 70 bushels corn, 4 bushels buckwheat, 100 lbs. wheat screenings, 600 lbs. meal, with beef shanks and chandler's scraps, at a total cost of $74, besides several bushels of boiled small potatoes unestimated.

Deducting the eggs used for setting, the value of eggs and chickens at actual Bridgeport prices, averaging 16 cents per dozen for eggs, and 35½ cents a piece for live chickens, was $96; to which must be added the increase of a drake and duck that fed at the same table, which I estimate at $2 50—said drake and duck, with the assistance of these hens, having succeeded in raising seven young ones from 57 eggs laid—making a grand total of $98 50. This is only $24 50 more than cost, which is not as much as my previous year's *profits* from a stock of one-third in number.

I alluded in my former report to a certain bluish gray hen; she is still living, and now nearly three years old. During the past twelve months this hen has laid (I believe) more than 100 eggs, and hatched (I know) four broods of chickens, the last on the 3d of December, and is again laying daily! If you know of any hen that can beat that, I should like to be made acquainted with her.

I also beg to solicit some instruction in the art of raising ducks, and to inquire which are generally most successful in hatching and brooding them—hens or their natural parents? J. N. I.

Pembroke Green, Bridgeport, Conn., Feb. 1, 1859.

Improved Sheep for Texas.

Sheep growing already enters largely into the husbandry of Texas, and this business is fast increasing. It has proved profitable with the exception of an occasional prevalence of disease or distemper in a few localities. We are glad to notice continued efforts to introduce improved breeds for crossing with the native or Mexican stock. The larger breeds thus crossed produce increased size of carcase as well as a greater yield of wool. We see it stated that the Hon. Senator from that State, Sam'l. Houston, recently said he had determined to retire from politics and go into sheep raising, and he believed that he could do more for his State by introducing improved sheep than in any other way. Feb. 3d we saw passing through this city a lot of the "New-Oxfordshires" to be shipped to Texas—a part we believe to A. Phillips, Esq., of Victoria, and a part to Col. Forshey, Superintendent of the Military College, at Rutersville. They were from the flock of Mr. John T. Andrew of Connecticut. We hope the enterprising purchasers of these sheep will be successful in their laudable efforts to improve the present stock.

The Lama or Alpaca.

In answer to several correspondents who inquire about this animal, we present the above engraving with a few brief notes as to its habits, value, etc. The Lama (*Auchenia glama*) is a native of Peru, being found among the higher mountainous districts. From its valuable qualities it is to the natives inhabiting these rugged and sterile regions, what the camel is to the Arabs, or the reindeer to the Laplander. Indeed it belongs to the genus *Camelidæ*, having as the engraving shows, the long neck of the camel, but is destitute of the "hump." It is used as a beast of burden, being capable of carrying about 150 lbs. weight. The structure of its hoofs enables it to pass securely over the broken and precipitous mountain paths of the country. It is much smaller than the camel—being but little larger than the American deer. The hight of the *body* is seldom over three feet.

The flesh, especially of the fawns, is said to be very good for food, but the Lama is most prized for its wool, which is used for making fine shawls, and also the fabric known as "alpaca," and is quite largely exported to England for this purpose. It is represented as being very hardy, requiring scarcely any care, and satisfied with the very coarsest of the scanty grasses found in waste districts. It has been thought that the Alpaca would thrive well in the cold and sterile mountainous regions of the United States, and some attempts have been made to introduce them, the most recent being that of a French gentleman, who last year brought forty-two animals from the Cordilleras of Peru, to this port; but not finding a market for them, he reshipped them to England. Although their known qualities would seem to fit them for many localities here, they have not been sufficiently tried to warrant any conclusions as to their ultimate profit as an addition to the domestic animals of our country. Yankee enterprise, however, will doubtless in a few years determine this point.

Unsettled Questions in Potato Culture.

Long as this useful esculent has been cultivated, there are some points in its management not yet fully settled. As connected with the subject of the potato *rot*, it is worth while to observe, each year, whether varieties most liable to the disease, mature their seed balls. According to the writer's limited observation, some of the most delicate sorts produce balls one year, and then fail to do so the next. Let this matter be noted and inquired into the coming year.

Then, as to the use of manures. Many persons think that on new land, no manure whatever is needed; that the crop does better without it. Others hold that all soils require the addition of manure. Some say, old, well-rotted manure, others, fresh long-manure. Hog-manure, say some; others, barn-yard dung. Hen-manure is the best of all, cry out some people; not equal to guano, say others. You are all mistaken, shouts a new man, ashes or plaster, or ashes, plaster and lime mixed, is the ne plus ultra of manures. And the last man recommends meadow-muck mixed with ashes and plaster. Now, it takes a multitude of facts to establish a principle, and it is to be hoped that farmers and gardeners will keep on experimenting yearly, until they arrive at conclusions which cannot be shaken.

Then, as to the time of planting. It is generally maintained, now, that early planting is best, but there are facts and opinions on the other side. Let this point be still looked after.

As to the size of potatoes for seed, and whether they should be cut or uncut, planters are not fully agreed. A few still hold that a thick paring containing an eye, is all that is necessary, but the number of such is annually diminishing. Many say that the smallest potatoes are as good for seed as the largest. A great majority, we believe, prefer medium-sized potatoes. Let these several opinions be subjected annually to the test of experiment.

Draining in March.

BY A STATED CONTRIBUTOR.

There is a time for everything, and, among the rest, for draining. The latter part of this month, before the Spring plowing begins, is a favorable time. The ground is free from much frost, and other labors are not yet pressing. Every rod of drain made will serve to help forward the plowing, sowing, and harvesting.

The present is not the best time to *determine* where drains should be made: that we will suppose to have been done during the last season. They are wanted, of course, wherever the surface water remained late last Spring, hindering the plowing and planting. They are wanted where the water collected and remained a long time when you dug post-holes late in the season. They are wanted where the soil was cold and stiff, heavy in Spring and Fall, and hard as a brick-bat in Summer. They are wanted in yonder orchard, where the trees are mossy and stunted. They are wanted in yonder pasture, where the ground "gives" under your feet, and where the grasses are coarse and sour.

All this was known and felt last year, but now is the time for doing the work. We do not propose at present to go into the details of drain-making—for the readers of our several late volumes this would be unnecessary—but a few words may not come amiss. Low, boggy ground may be much improved by cutting wide ditches through them, with sloping banks, and leaving them open. If the land is such as to admit of cultivation, the ditches may be filled with brush, laid with the butts down the channel, the whole pressed down with the foot, then covered with straw or sods, and finished off with two feet of soil. This is not, of course, the best drain, and the cheapest in the long run, but may do for a make-shift. Rails, (they are none the worse for being crooked), cedar poles, planks nailed together, so as to leave an opening like the letter Λ, each will make a ditch for soft, *swampy* land, that will last for several years, and answer a good purpose. Brush drains well made and not meddled with, *sometimes* last a dozen or more years. For ordinary farm land, however, stones carefully laid are much better, and drain-pipes are best of all. For a stone drain, the bottom should be solid and smooth, the stones laid firmly so as to keep in place, then covered with inverted sods to keep out the surface dirt. And yet, after all possible care is taken, mice will often burrow in them and clog up the throat. The drain-pipes and tiles are not open to this objection. The horse-shoe tiles, laid upon boards or planks at the bottom of the trench, and the round pipe or sole tiles laid upon a hard clay bottom and well matched, will seldom get clogged, and will last a life-time. The round or pipe-tiles are best generally, if carefully laid so that the ends will meet well together, and not be displaced by the earth when settling. Once firmly bedded, nothing but water can get into them, and they will last a century or more.

As to the *depth* to which ditches should be sunk, experienced farmers are not yet agreed. Some maintain that two-and-a-half or three feet is all that is needed; that this puts the pipe below injury from frost, below the plow-point, and as low as the roots of grasses and grains ordinarily penetrate. They hold that to dig deeper than this is very laborious and expensive, and does not compensate for the trifling advantage gained. Others, however, insist that four or five feet is the true depth, and that anything less is only scarifying the surface. We shall not now try to defend either opinion, but, while always advocating thorough work, shall be very glad to know that even the first named depth is reached this Spring by many of our readers. The farther apart drains are made, the deeper should they be sunk.

How Deep to Drain.

To the Editor of the American Agriculturist:

How deep shall we put our drains? Some say two or three feet; others four or five feet. Who are right? Last Autumn we dug a ditch 30 rods long, and 3 feet deep, as an experiment. We first plowed out about 20 inches, when we came to stones and *hard-pan*. The rest of it had to be worked out with the pick. The water will not run through the hard-pan any more than it will through cast iron. Now, what good will it do to dig ten inches deeper in such stuff? I think 26 inches is about enough for such land; that is, 5 or 6 inches for the tiles or stones, which ever may be used, and 20 to plow in, which is enough.

RUSTICUS.

Cattaraugus Co., N.Y., Jan. 15, 1859.

The depth of drains depends entirely upon the circumstances in each case. A soil freed from water and penetrated by air four or five feet deep, is better for all crops than one only two or three feet deep. Nearly all kinds of cultivated crops send down roots four or five feet and more, where there is a good open soil to that depth; and when roots thus reach down below the sun's *temporary* effects, they are absolutely secure against all drouth. But plants will never go below the lowest point where air can penetrate. Without the oxidizing influence of air, soils almost invariably contain more or less materials which are poisonous to plants.

There is scarcely a "hard-pan" in any locality so perfectly impervious to water, that it will not gradually soak through into an open passage or drain, if there is one near. The depth of drains depends much on their nearness together, and the porousness of the soil. In porous soils drains three feet deep and fifty feet or more apart, will drain the entire surface soil three feet deep.

In impervious soils the drains must be nearer and deeper. If in such soils the drains be forty feet apart, and four feet deep, they will drain twenty feet on each side; but, owing to the impervious nature of the soil, they may not drain the middle line between the drains more than two or three feet deep; while alongside of the drains they will remove the water four feet deep. The deeper the drains, the more fall there will be to the water—and the greater will be the pressure to carry it through hard and impervious soils. To illustrate: Set up a brick tube four feet long, and closed at the bottom. Then fill it with water. You will see a little moisture oozing at the sides near the top—water farther down, and near the bottom of the tube, the water will almost run through. It is much the same in draining impervious or clay soils. The deeper the drains, the greater the pressure of the water to get into them.—ED.

Written for the American Agriculturist—Prize Articles.

Farm Fencing.....III.

GROWING THE HEDGE.

The "quicks," as the English thorn-hedgers call the young plants used in constructing their hedges, are grown from the seeds, which are abundantly produced in the "haws," or fruit which give them such a lively appearance in Autumn, as on our native thorns in America. They are readily gathered by children, the seeds *washed* out, by soaking in water, and a gentle pounding in a shallow tub with a light club, like a washing pounder in shape, and used in the same manner. They are then dried, and before Winter sets in, are thickly sown in nursery rows in earth deeply dug or plowed, and of moderate fertility. The hard thick shell renders the operation of severe frosts upon them necessary to their germination in the Spring, and a second Winter is sometimes needed to bring them all into sprouting. Our American Winters being more severe, a larger number of the planted seeds would probably grow the first season, than in England. Our Osage Orange, Arbor Vitæ, and other hedgeing seeds are planted in the same way. We rely for them mostly on the seed stores, they being grown and gathered usually in localities more or less distant. For the privet we need no such preparation, it grows immediately in the hedge row from the slips, or last year's cuttings. The nursery plants usually require two years' growth, with good cultivation, before they are fit to transplant into the hedge row. The hedge row, itself, should be thoroughly prepared by a previous season's deep plowing, and pulverizing—manuring even, if the soil be poor. It is scarcely necessary to add that the hedge row should be dry—or well drained, if not dry—and slightly crowning in shape three to four feet wide. Into this the plants should be transferred early in the Spring. Fall planting unless in very favorable positions, subjects the 'quicks' to be thrown out by the frosts of Winter and the consequent heaving and settling of the

ground. When taken from the nursery, the tap-root should be cut off short, and the side roots shortened by a sharp knife, and set in the soil, perhaps an inch deeper than they stood in the nursery beds.

There are two different modes of planting the hedge. One is in a single line, with the plants nine inches to a foot apart, according to their size when grown. The other, and we think the better way, is to plant them in double rows; one row a foot from the other, and the plants eighteen inches to two feet apart in the rows. Set alternately against the centre of the space in the opposite row, thus making it thicker at the bottom. When planting, the tops should be cut down to within two or three inches of the ground, that a thick growth of young shoots may at once push out from the original stool. They must be kept clean and free from weeds and grass, and cultivated by two or three hoeings through the Summer. If the season be favorable, and the plants well set, the growth will be one to three feet. It will be also understood that the young hedge is to be properly guarded by fence, or otherwise, from the depredations and tramping of large animals, or they will rapidly destroy it altogether. The next Winter the new growth must be cut back within six inches of the ground, and in the succeeding Spring the dead or missing plants if any, be replaced with others as near the size of the standing plants as possible. The *second* season's growth will be more vigorous than the first, and the next Winter they must be again cut back to eight inches or a foot in hight, the previous or second Summer's cultivation having been like the first.

"Plashing" is practiced by some hedgers. This is done by reserving a portion of the last year's growth, and binding them down horizontally, confining them by forked pins in the ground, so that they will throw up perpendicular shoots, and thicken the young wood; but the benefits of this mode is doubted by some hedgers, and only adopted by them when the plants are originally planted at greater distances in the rows than we have named, or when missing plants can not readily be replaced. The *third* year the hedge will have made a sufficient hight and thickness to measurably protect itself. Keep the ground clean at the roots, as before. They may require but a moderate topping for future form, and growth. After this, circumstances must govern as to the management. At the end of four or five years the hedge ought to be sufficient not only to protect itself, but the fields which it encloses.

We have written, up to this point, as if no adverse influences had occurred to mar our labors, and that the seasons had been good, the rows well cultivated, and no field mice, gophers, rabbits, or other destructive creatures had preyed upon the plants, which, by the way, is a fortune too good for expectation in a country so liable to these depredators as is ours. Let the material of the hedge be of whatever kind of plant it may, the process of cultivation, growth, and treatment we have described is pretty much the same. Yet the drawbacks are many, and formidable. A Western paper now before us, in an article on Osage Orange hedges remarks: "In all our travels we meet with the most reckless disregard of the rules that have so frequently been published that we are almost inclined to regard the whole hedge system in the United States as a failure; not however from any want of adaptation of the Osage Orange to the purpose, but from the lack of regular, systematic treatment on the part of the farmer. In all the efforts at hedge-making throughout the west, *we doubt whether there can now be found one rod of perfect, well-formed hedge to a mile that has been set, or even to five miles!*" A most lamentable conclusion certainly, so far as man's efforts are concerned, and for which, if men intend to have a hedge at all, there is not a shadow of excuse. Yet, the destruction by the natural enemies we have named oftentimes circumvents, and destroys the utmost painstaking of farmers, against which there is scarce a possible way to guard.

In calculating for a hedge, therefore, the farmer has to take a broad survey not only of his grounds and locality, but the probability of the extent of depredation he may have to encounter from the vermin which are like to overrun him. Small enclosures, in thickly populated communities, are usually free from this sort of destruction, but he must arm himself with a sufficient stock of patience, capital, and labor to protect and watch his embryo hedge for at least five years before he can turn it out for its own protection, and that of his fields. Be it Osage Orange, buckthorn, the common thorn, or whatever else it may, no immunity is guaranteed him from the lawless depredations of domestic animals, or vermin, beyond what his own exertions can secure. Therefore the hedger takes his life in his hand, so far as his success in that particular is concerned.

THE COST OF HEDGES.

This must vary in different localities, and according as the plants are easy, or difficult to obtain. Quicks, either of the Osage, or the thorn of various kinds, may be grown for a dollar a thousand, in some places—less, or more, as the case may be. The proper fences may be made for protection while the hedge is growing sufficiently to guard itself for, say fifty cents a rod at the lowest, up to seventy-five cents or a dollar; and these may be removed at small expense to serve a like purpose elsewhere, or for other uses—with some wear and tear, to be sure, which must be taken into the account. Then the annual expense of cultivation is to be counted until the hedge can take care of itself, so far as growth is concerned. It will always require an annual oversight, and a certain extent of labor in trimming and heading down to a proper hight, which need never be over eight, or nine feet. All these may vary in cost, according to circumstances, and success in effecting the finished hedge, so that it is next to impossible to calculate the entire expense of the article *complete*; and any estimate in dollars and cents, within a *cheap* sum, may be entirely fallacious, as so many contingencies may occur to thwart our calculations.

For ourselves, we believe the cost of a well grown, secure hedge, may vary any where from two, to five dollars a rod—certainly not less than the one sum, nor exceeding the other. Yet, when it is considered that it may last a century, and perhaps more, the lowest sum will render it a very cheap fence, and for the surroundings of an entire farm, the highest may not be a dear one. But we can in this country run no sure parallel with England in the cost of making, and afterwards maintaining hedges. There, the hedge is the almost universal fence of the country; here it is scarcely introduced. There, almost every farm laborer is more or less a hedger; here the *professional* hedger is scarce, at quite twice the wages paid him at home; and coupled with the additional difficulties to be encountered here in getting up the hedge to the secure point, the cost, and practicability of the work in the two countries finds no approximate parallel.

AS A THING OF TASTE,

we might descant upon the hedge as worth the attention of our landscape gardeners, and designers for ornamental grounds, parks, and lawns, as of our wealthy farmers and land holders, looking to the permanent improvement of their rural homes, and agricultural estates, aside from the question of *immediate* profit and utility. That is a question which they must settle for themselves. We concede the exceeding beauty of a country with its highways and fields hedged in by living, growing, green, and fragrant lines of vegetation, instead of unsightly stone walls, uncouth zig-zag rails, posts and boards, palings, or pickets, even; but we must conform, measurably, to the dictates of economy, and strict *immediate* utility, before we can warmly recommend the hedge to the American farmer in our present state of experience.

The time may arrive when it will be his only, and imperative resort; and even now, in those broad tracts of our Western States where it is apparently already so, we decidedly recommend its trial on a moderate scale—with the full notion, however, that he who adopts it has got to undertake it in no half-way measure of execution, but take hold for its successful accomplishment, if success be attainable at all, and ascertain for himself its practicability. As we have before stated, the whole question of American hedging is yet unsettled, but is certainly worth the trial, where other material is wanting, or is too costly.

We have bestowed more time and space on this branch of our fencing economy than we at first intended; but the numerous inquiries from various parts of the country, which have of late years been started on the subject, have led us into a wider range of discussion than we should otherwise have given it.

A Stitch in Time.

The lengthening days and melting snows betoken the coming of Spring. Every farmer rejoices in its coming, but is every one ready for it? At the North little or nothing can be done in working the soil, this month, except in the matter of draining. But much preparation can be made for Spring work. Implements of all kinds should now be looked over and put in good repair. Are the plows in proper condition; and of the harrows are no teeth gone and none loose? The manure-forks, shovels, spades, hoes, crow-bars, cradles, harness, wagons, chains, are they all at home, under cover, and in complete order? How often are tools lent to neighbors, and not returned till called for from necessity, and then are out of order and must be sent to the shop for repair? What a loss, then, of time and patience and neighborly good feeling!

Let us also look into the seed department. As grass and clover need an early start, no time should now be wasted in securing good seed. So of wheat and oats, and corn; now is the time to look them over, and provide for sowing and planting. Whoever has not *good* seed of every kind he expects to use, should spare no pains or money in securing them. It gives the cultivator no little satisfaction and self-respect to know that he has taken time by the fore-lock, and made all needful preparation for his work in advance. For him, as well as for everybody, it is a good rule to drive one's business and not be driven by it—"A stitch in time saves nine"—often ninety-nine.

It was once remarked in the hearing of a little girl of thirteen, that all things came by chance, and the world, like a mushroom, sprang up in a night. "I should like to know, sir," asked the child, "where the *seed* came from?"

SPRING.

(Engraved for the American Agriculturist.)

Spring has come again! So the Calendar says, and in accordance with our plan, to introduce each Season with an emblematical Sketch, we present the above beautiful engraving. Save as an *emblem* of the season upon which we now enter, our picture would be out of place this month—that is, in this latitude and further north. Here the snows of Winter yet cover the earth, or linger on northern slopes and along the walls and fences. The trees, though their swelling buds inspire hope, yet stand forth as bald as in December. The crocus and snow-drop perchance lift their modest heads to take a survey of the prospect, but weeks must intervene before such scenes as are portrayed above will greet us here. The very word SPRING, however, awakens lively emotions, and inspires pleasant anticipations. And already, on the sunny fields of our more Southern borders, its gentle influence is fully realized. The children have begun to twine the garlands of wild flowers, and the aged and infirm to seek the glad sunshine by the open casement.

To the tiller of the soil, who hails even the first timid warbling of the blue-bird which tells him that nature is again awaking to greet him, the scene will be especially grateful. Though Spring shall summon him to more arduous toil, he rejoices even in this. The comparative inactivity of Winter has become irksome. Probably no one works more "with a will" than he. The mechanic, in his dusty and ill-ventilated shop, finds little besides the hope of gain to inspire him in his labors, and often does he sigh for freedom as he looks through the window to the inviting fields and woods that tantalize him in the distance. But in what a magnificent theater does the farmer pursue his vocation. The earth around and the sky above seem to vie with each other in cheering him. To this we attribute much of the cheerful alacrity with which the plow-man, or the mower goes through his task. With the abundance of the best materials about him for developing and refining his taste, the cultivator of the soil should be educated to the highest point in the appreciation of the beautiful. As the Spring comes with willing hand to adorn every thing upon which her smile shall rest, let each one who owns or occupies even but a few feet of soil, with flower or shrub or vine, invite her skill and enjoy her bounty.

Choice of Site for a House.

The proper location of a dwelling house, which is to be the abode of a family for half a century, perhaps, is a matter of very great importance. In the case we now suppose, the builder has not yet bought his land, and is free to choose whether it shall be near to a town or remote from it, on high ground or low, broken or level, wet or dry. If a farmer, he must of course, live out of town. He will find, too, that the nearer he is to a large village or city, the greater will be his expenses, and the more irregular and discontented his laborers. Pleasant as it is to be within sight of the town spires and domes, within hearing of the town bells, and within easy, reach of the town stores, millinery and fancy shops, and saloons, it is not necessarily the best situation for the most profitable and quiet pursuits of rural life. But supposing the general question of location already settled, how shall one choose the best particular spot on which to build his home?

1. Choose a *healthy* site. The borders of stagnant ponds, or marshes, or canals, are not supposed to be healthy. Low, wet ground, or even high lands where subsoil is cold and springy, are not wholesome. If the elevated ground is very desirable in other respects, it may be improved as to its healthfulness by thorough drainage, and by covering all the walks and roads of the neighborhood with gravel and sand.

The greatest pains should be taken to secure a warm, dry bottom for the house and its surroundings. The house is to be the home of the family; the place where tender children and females are to spend the greater part of their existence; and where their health, happiness, and length of life will be very much determined by the nature of the soil on which the house stands. Often-

times, when the surface of the ground appears dry, the moisture of the subsoil shows itself in the cellar of the house, and rises through the walls and rooms of the building, discoloring the paper-hangings, diffusing a musty odor in all the lower apartments, and rendering them unwholesome and cheerless.

The healthfulness of a site is affected also by its relative exposure to strong winds. A certain amount of wind is desirable: it drives away fogs and brings in a constant supply of fresh air; it is also bracing and exhilarating in Winter and Summer. But there may be too much of a good thing. If the wind blows directly off from a large body of water, (as, for example, in Spring, from a frozen lake,) or across the brow of a hill, or through a gap between mountains, it will probably be disagreeable and unhealthy.

2. Choose a spot *easily accessible*. One must not go so far in pursuit of a healthy site, as to get out of the reach of his fellow-man. Poets and "geniuses" may perch their houses on high peaks, if they choose, but common folks, who have something to do almost daily with the public highway, and with the neighboring village, with its post-office, church, stage-house or railway station, blacksmith-shop, etc., should live where they can go and come, at ease. And then, few people are so unsociable, or so regardless of public notice, that they do not wish to build where their friends can easily visit them, and see how they live and prosper. Yet the tendency is to err on the other side. Many men (we won't *speak* disparagingly of the ladies!) like to live close upon the public street, where they can see whoever goes by, and learn what their neighbors are doing. Some houses are built, purposely, with the kitchen on a line with the parlor, stretched along upon the roadside, so that the inmates can have one eye on their work, and another upon the street. Would it not be better to set the dwelling a few rods back from the road, and to keep the kitchen in its appropriate place, in the rear of the house? All this would be still consistent with accessibility. The house might be retired from the public gaze and from noise and dust, and yet not far from the society or the conveniences of the neighborhood and town. Accessibility has reference, also, to the road on which a house is placed. If it is a uniformly rough, muddy, hilly, or otherwise *bad* road, the location will be so far objectionable. It will be a constant annoyance to the household, a hindrance in hauling loads over it, and a serious obstacle to sociability.

3. Choose a *pleasant* site. All persons may not agree as to what this consists in; but no one will quarrel with us for saying that it is one free from the sight of offensive objects, and which commands a pleasing prospect. It would evince bad taste in a person to plant his house directly opposite a barn-yard or slaughter-house, or distillery, or tan-yard. Then, there are other objects, less disagreeable, but which should be avoided in laying the foundations of a permanent home. Rather choose a spot from which the eye can range over distant hills, green fields, cultivated farms, gardens and tasteful dwellings. And to secure such a pleasing prospect, build, if possible, upon an elevated site—not necessarily upon a hill, toilsome of ascent, and exposed to bleak winds, but upon a gentle eminence, lifted above the damps and frosts of the valley, and raised up so as to command a view of a large slice of the earth's surface. Such a situation is always more cheerful and inspiring than one upon a dead level. The air is purer, drier and more bracing; and then the surrounding landscape, changing as it does from month to month throughout the year, is a gallery of pictures painted by no mortal artist.

Profits of Single Grape Vines.

We have often urged all our readers to set out at least one or two grape vines somewhere in the garden or door-yard—not usually to raise grapes for sale, but to secure a supply for home consumption. The first cost of procuring and setting a vine or two, or three, is trifling, while the product is large and of great value. A grape vine requires but little ground room, and whoever has a few feet only of soil by the side of the dwelling, may put out a vine, where there may not be even room for a fruit tree to expand its branches. The vine may be trained up over a porch, or on the sides of the dwelling itself.

On page 337 of last volume (Nov. No.) we gave an account of two vines (a Concord, and a Hartford Prolific) which yielded 60 lbs. of luscious grapes the 2d year after planting. These were unusually well rooted when set out, but are an indication of what may be obtained very soon after planting. We now give another item which we recently gathered from our old friend and long-time subscriber, Stephen Haight, of Dutchess Co., N. Y. He has an Isabella grape vine, 12 years old, which is trained upon a trellis, and branches out about 25 feet each way from the root. The past Autumn he picked from this single vine *two-hundred and twenty six pounds* (226), leaving at the same time fifty pounds of unripened grapes which were afterwards made into wine. (In all 276 lbs.) The ripe bunches were carefully looked over, and the green, bruised, and decaying berries cut out with a pair of scissors. They were then packed precisely according to the directions we gave in October last (Vol. 17, page 307). Dec. 22, when grapes were a rarity in the city, Mr. Haight sold the product of his single vine here, for $56½, (25 cts. per lb). Pretty well for one vine.

But Mr. Haight "owns beat" by a neighbor, who has an Isabella vine some 25 years old. It covers an arbor extending off from the house. Three years ago, when an account was kept, this single vine netted $70 worth of grapes sold. This vine we think is not outdone by any other one in the country. Perhaps it may be—if so let us hear of it.

But aside from these unusual cases, a grape vine that will annually yield five or ten dollar's worth of this excellent healthful fruit for home consumption, is a thing that pays, and we believe every family in country, village and city may have at least one such vine in a year or two, if they will put out two or three vines this coming Spring. Some will say "all this is fine talk"—others will practice upon it and reap the reward.

Look After the Sugar Orchards.

[The following article was designed for the February *Agriculturist*, but arrived too late—some of its suggestions are still seasonable however.—Ed.]

A man who has a good "sap bush," and knows how to use it, is fortunate. But we have, within a few years past, seen many a grand old grove of sugar maples cut remorselessly down, and made into cord-wood or saw logs, merely from the mistaken notion that "maple" sugar don't pay. Now we don't believe a word of it—on agricultural lands. If we had a sugar bush—as we have not now, our land not yielding maples of the right kind—we would preserve it as the apple of our eye. We would have it well underbrushed and clean, and laid into grass; the sun should shine into it; the cattle should graze, and lie down under it in Summer; and oh! what times we would have there in sugar making! wouldn't we!

Now is the time to have the wood cut and hauled into the "camp," all split, and nicely piled under cover, close by the shed where the kettles are set. The buckets should all be cleaned, piled and ready for use; the "spiles," made of the cleanest of Sumach, all sharp, and ready to drive when the "bitt," or "gouge" has made the cut in the trees to receive them.

We don't believe in "boxing" trees with the ax. It is a barbarous mode, and we have seen many a noble bush ruined in ten years by such inhuman girdling before the trees had really begun to do their best. A well managed sugar bush grows better with age, as the sun is gradually let in upon it, and the trees become acclimated to the open atmosphere. So take as good care of it as you would of your apple orchard, and it will quite as well repay your care and painstaking. Of the luxury of Maple sugar we won't now talk. Every housekeeper knows its value, and it is always worth fifty per cent more at the "storekeeper's" than the "boughten" article. We once knew a poor man, with a large family of children, thin and cadaverous; but getting a chance to take a neighboring sugar bush on shares, towards Spring, the little barbarians all got fat as pigs by the time "sugaring" was over. A reliable, luxuriant fact is a good sugar bush!

Western New-Yorker.

How Long will Trees Live.

Why may not trees live forever? Is there a necessary limit to their existence? Do they, like animals, have their infancy, youth, maturity, decline, and death? This is the common opinion. It is believed that they die, not solely because accidents befall them, or diseases assail them, or because they are cut down by the woodman's ax—but because, escaping all such contingencies, their cells and vessels become hardened and incrusted, and the fluids cease to flow, and they perish from sheer exhaustion and old age. They wear out and run down, like an old clock.

Let us overhaul this opinion a little. Vegetable physiology shows that the living parts of an exogenous tree, that is a tree growing by additions to the outside, are: (1) the extremities of the stems and branches, including the buds; (2) the extremities of the roots and rootlets; and (3) the newest strata of wood and bark. These are all that are concerned in the life and growth of a tree; and these are renewed every year. The functions of life in *an animal* are carried on for a whole life-time in one set of organs; and when these organs wear out, the animal dies. But the life processes in *a plant* are carried on through organs annually renewed, and hence the plant is not subject to decay, for the same reason that the animal is. Every year the crude sap rises from the roots to the leaves, where it is digested, and from whence it descends, leaving deposits on the way, of new buds, bark, wood, and roots. If, then, all that is concerned in the life and growth of a tree is annually renewed, making the *living* and *active* parts of a tree never more than one year old—why should not the tree continue to live on for an indefinite period? There seems to be no necessary reason, no cause inherent in the tree itself, why it should die.

Again: a tree is not, philosophically speaking, an individual, like a man, or any animal. It is a community, an aggregation of individuals. The only real individual in a plant is the first cell of which the plant was originally composed. Every bud on a tree may also be considered an individual, since it has in itself all the elements of an

independent plant, and may be made to produce one. Now, if it be objected that the inner parts of the tree die, or at least become inactive heart-wood, yet the outer parts do not: *individuals* may perish, but the *community* does not, for it is renewed and increased every year.

Trees have been happily compared to the "branching or arborescent coral." This structure is built up by the combined labors of a multitude of individuals—"the successive labors of a great number of generations. The surface or the recent shoots alone are alive: all underneath consists of the dead remains of former generations. It is the same with the vegetable, except that it makes a downward growth also, and by constant renewal of fresh tissues, maintains the communication between the two growing extremities, the buds and the rootlets." (*Dr. Gray.*) As the coral structure, considered as a mass, lives on indefinitely, though the individuals composing it perish, so a tree considered as a composite structure may live on in the same way, without any assignable limit to its life. Every joint in the root, and every bud from its branches might be taken off, and set up by itself to form a separate and independent tree; but if they all choose to stay on the homestead, need they and the family die out!

—So much for theory. We shall present some facts next month.

Hints on Evergreens.

There seems to be less general information in the community on the subject of evergreen, than of deciduous trees. One reason is, that the former don't bear fruit. Did only pumpkins, apples, or potatoes, grow upon them, they would be more popular and better understood. But generally they are considered as *merely* ornamental trees, and that is enough to condemn them with many people. Another reason is, that comparatively little has been written about them. Meehan's Hand Book and Downing's Landscape Gardening, give some information concerning them, but do not treat the subject fully. The recent volume of Dr. Warder, on Hedges and Evergreens, adds to our knowledge in this department, and will lead to a more general planting of evergreens. This writer shows what we have often set forth, viz., that this class of trees should be planted for *economy*, as they afford excellent shelter in Winter to houses, barns, grain-fields, orchards, and gardens. This consideration is important in every part of the country, but chiefly on the Western prairies. The value of evergreens for timber, is also an item not to be overlooked.

Dr. Warder happily sets forth the *ornamental* character of evergreens. When properly grown, they are very symmetrical, they present a greater variety of shades of color than is often supposed, and they retain their beauty with only a slight diminution throughout the year. What a striking contrast do their forms and colors present to those of deciduous trees even in Summer! They give a depth and richness to the landscape which is peculiarly pleasing to the cultivated eye, and which no combination of deciduous trees alone could possibly effect.

One of the greatest mistakes made in planting evergreens, is that of setting them so near to walks and carriage-roads, fences and buildings, that they soon outgrow their limits, and have to be cut down or badly mutilated. In reference to this, Dr. W. very justly says: "When first obtained from the nursery or forest, the plant will have cost something either in money or labor; it is often a wee thing, and certainly, if well shaped, it is a very pretty object; hence it is jealously set close to the window. Were it always to remain a sort of parlor-pet, this position might answer very well; but it is to grow and develop itself into a large tree, and in so doing, it should preserve its fair proportions: for this, space is required; if crowded against the house, its beauty will be marred, and instead of being of service, and a beautiful object, it will become an eyesore and a nuisance."

For trees which look unhealthy and fail to grow, this author recommends a top-dressing of ashes, or old, well-rotted manure mixed with sand and ashes. Some of the statements in this book in reference to the *hardiness* of certain trees, will need a grain of qualification for latitudes north of Cincinnati. For instance, *Abies Menziesii* and *Pinus excelsa* are styled "perfectly hardy," which is certainly not the case north of Albany, N. Y. *Taxodium distichum* endures the Winter further north than he mentions.

For the American Agriculturist.

American Fruits—Past and Present.

BY LEWIS F. ALLEN—ERIE COUNTY, N. Y.

The fruit producing capacity of our older States was either much greater, the skill applied to the cultivation of the greater variety of fruits was better exercised—or, soils, climates, insects, or other adverse influences have since combined, constantly and gradually to act prejudicially upon them; for, it is certainly more difficult to rear the trees and obtain good crops in the late years preceding 1859, than it was in the years preceding 1810, and for many years afterwards. I admit that the standard of taste for most kinds of our cultivated fruits, is much higher now than it was forty or fifty years ago, except in Apples, the most approved kinds of which were then, as they now are, pretty much the same in most localities; and I believe also that the standard of skill and intelligence in fruit cultivation is higher now, than then.

A chronological history of American fruit culture, from the early settlement of the United States to the present day, kept by a succession of accurate observations would be a most interesting subject of study to a pomologist of the present day, could such a record be found; but, unfortunately, our fathers had no horticultural or pomological magazine in their day, nor agricultural publications of any kind; and the only pomological records of the two centuries before the present that we have, are to be found in the fugitive notices scattered through the books of the time, and in the memories of those now living, whose recollections extend into the latter part of the last century. We have had no agricultural, much less pomological literature to speak of, until within the last thirty years—the little which existed previous to that date, being mostly fugitive and temporary.

I propose to throw together a few facts, some of which I have drawn from old books, and others from my own recollection, touching the facts and progress of fruit culture in the northern States; not that they have any particular value, as bearing upon *present* fruit cultivation and prospects, but as comparing what once existed within a comparatively recent period, with what now exists; and if for illustration, a little self-history, or egotism is displayed, the value of the subject itself must excuse it. An actor in the drama, although not the hero of it, can scarcely keep himself altogether out of sight.

Born in the first decade of the present century, my earliest recollections are of the scenes of my birth place, and seven first years of my boyhood, on a large rocky farm lying near the base, and on the south-easterly slope of a huge mountain, in Southern Massachusetts, a few miles west of the Connecticut river. Across the lower part of that farm, the Boston and Albany rail-way now runs, in latitude about 42½° north. There my Grandfather had established himself soon after the war of the Revolution in which he had been an active commissioned officer, and connected with his agricultural pursuits, mills and other mechanical operations. He had large orchards of the finest grafted apples—some of them among the most popular of the present day. Peaches grew, and bore crops in the greatest abundance, all over the farm, of the finest varieties of rare-ripe and *melocoton*. Pears were abundant, and in good variety. Plums of choice kinds, and Cherries of the common sorts flourished. Quinces grew well. The smaller garden fruits were in profusion; and even a delicate white sweetwater grape clambered over a ledge of rocks near the house, and gave its annual yield of fruit in hundreds of delicious clusters. To say that the founder of all this pomological wealth was a man of decided taste and energy in that line is scarcely necessary. He had a passion for fruit and its cultivation. His farm was new, for he had mainly cleared it up himself. The soil, though not exceedingly fertile was of primitive formation, open and warm, and its position sunny, and sheltered from the sweeping northwest winds. In short, it was a *natural* fruit producing place.

Forty odd years ago, the proprietor of that farm died. His sons had gone away and engaged in other pursuits, excepting one who remained at the homestead. There was no market at all in the neighboring towns for the fruits. The son who was left on the farm disliked its rocks, and the slavish labor of cultivating it, and in a few years afterwards sold it, and removed to the more genial soil and climate of a then far-off western State. Had the present rail-road facilities then existed, or would the farm now produce in fruits what it then did, an income of several thousand dollars could have been received annually from the fruits alone, leaving the agricultural crops unnoticed. It is more than thirty years since I have set foot on that farm—an act of filial impiety for which I mean ere long to atone by once more visiting it; but I am told that the fruits have mostly disappeared: the trees even all gone, excepting the apple orchards, and they in the last stages of decrepitude and decay.

And this place which I have described is but a sample of numerous farms and orchards which then existed in Massachusetts, Connecticut and Rhode Island, as well as in eastern and southern New-York, New-Jersey, eastern and central Pennsylvania, if not in other States south of them, if tradition, history and the memories of living men are not at fault. One would imagine that nurseries to supply the trees for such abundance of fruit, must have been both large and frequent. Not so. "Commercial Nurseries," as now, were scarcely known. *Private* nurseries, however, supplied their places. My grandfather had one, from which his own orchards were supplied, and it contributed thousands of trees to his own plantations. Other orchardists did the same, and the nurseries of modern date substantially took their rise after the year 1825, since canals and railroads have so extensively come into use, and distant transportation is so easily effected.

APPLES.

The comparative amount of choice or "worked" fruits was much less in those days than now. In the abundance of apple orcharding particularly,

almost every farmer could select from his "wildings" a sufficient number of tolerable varieties for the seasons of family use, and as the balance was destined for the cider-mill and apple-brandy, the kind of apple was of little consequence. As Napoleon said "the English were a nation of shopkeepers," it could as truthfully be said that the people of our eastern States were a nation of cider drinkers, and apple eaters—for cider was the universal beverage of the farmers and mechanics throughout the country at breakfast, dinner and *supper*—the "wimmen folks" mostly "took tea," in those days—while cider also was the usual drink "between meals," except at the "eleven o'clock," when cider brandy was the daily "treat," in hard-toiling seasons. In farming neighborhoods or villages—cities were scarce then—one neighbor could scarcely call in at any time of day upon another neighbor, without a "mug" of cider being presented him, while the universal entertainment of an evening visit, to both old and young, was "apples and cider." It was nothing uncommon to find a wealthy farmer's cellar stored at the commencement of Winter with thirty to fifty barrels of cider and fifty to a hundred bushels of apples for family use, and the villager or small mechanic—day laborer even—who had not two or three barrels of cider, and apples in proportion, laid by for family use, was a "poor man," indeed. But temperance societies, and a better appreciation of wholesome drinks have worked an entire revolution in the cider drinking habits of both farmer and villager, until cider, as a beverage, is mostly known as a thing of the past. So long ago as thirty years, I knew of large and thrifty orchards of wilding trees being cut down altogether, because the fruit "would not pay," the owners little dreaming that with grafting into them the choice varieties, and the opening of railways to market, one acre of his orchard would be worth more to him than any five or ten acres of his cropping lands. Millions of noble apple trees throughout all the northern and some of the western States have been thus wantonly destroyed, the wisdom of which their owners may have since most sorrowfully questioned—particularly since their younger and more enterprizing neighbors are planting largely of the improved varieties, for distant markets.

That apples, years ago, were cultivated with perfect ease in almost every part of the country, from latitudes 38° to 44° north, needs no proof beyond the commonest observation. The first thing the farmer did after going upon a new farm, and clearing off land enough to provide his family wants, was to plant out an apple orchard; and, if he had any pomological taste beyond, to put in an assortment of other fruits, as peaches, pears, plums and cherries. Let the climate, soil or cul vation be what they might, the *apple* trees were almost sure to thrive, and in a few years produce abundance of fruit. Even in pastures, by the sides of stone-walls and fences, many a thrifty apple tree sprung up from seeds accidentally dropped, and without the slightest cultivation, except, perhaps a rough trimming with an ax, hatchet or jack-knife, grew into a large and profusely bearing tree. The canker worm, and the caterpillar, at various times ravaged the orchards for wide districts of country together; the trees were rudely cultivated—if cultivated at all—but they still grew and flourished in the main, larger in old times, than we now see them, full a century old, and yet in great bearing.

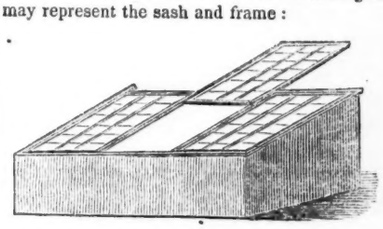
Apples are still a staple annual crop over extensive districts of country, when not cut off by extraordinary causes of weather or insect—as much so as Indian corn, wheat, rye, oats or barley; and our towns and cities are universally supplied with them at cheap rates. It is but three or four years ago that thousands of barrels were sent from the western canal counties of the State of New-York into Buffalo, where they were sold at a dollar to a dollar and a half a barrel, to go to Chicago—a thousand miles beyond by Lake transportation. Indeed, a large portion of the western New-York, winter apples find their best market on the shores of Lake Michigan, and the interior country beyond, where it is yet a problem whether that extensive region will be able to supply itself with apples in the future. I speak of this locality, because I know it. Other localities undoubtedly have like relative supplies, and markets; instance the south-eastern counties of Ohio bordering that river, in which are immense orchards planted by its early Yankee settlers, the owners of which ship every year, enormous supplies of apples to both the upper and lower Mississippi Valleys.

That apples are produced with more difficulty of late than in times past, is certain. The wearing of our soils by cropping is probably one cause; the depredations of numerous apparently *new* insects is another. We take more pains with our young orchards than our fathers did with theirs, and on the average they are not so flourishing, particularly in *old* soils. The insects are more destructive. Until about twenty years ago, I neither saw nor heard of the common apple worm in this vicinity—and there are large apple orchards on the opposite side of the Niagara river, in Canada, seventy years old, and still in bearing—while now in some years, half our best apples are spoiled by the worm in the core. I might say, with a good deal of *theoretical* truth—but that some punctilious nurseryman would "pitch into" *me*—(instead of my facts or argument) that the modern system of root-grafting many of the refined and delicate growing varieties, the wood of which is unfit to make a strong, vigorous and hardy *trunk*, but which would do very well as a top, worked on a *wilding* stem, branch high, is one cause of the comparative effeminacy in the growth of our modern orchards. But, with all the drawbacks attending them, we are not likely to be without a full supply of apples in our country for a long time in the future. I will speak of other fruits in my next.

Try a Hot-Bed.

A simple and cheap apparatus for bringing forward plants for early Summer use, is, to say the least, a very convenient appendage to every homestead large enough to have a vegetable garden. Yet comparatively few possess it, and among farmers especially, such a thing as a Hot-bed is almost unknown. Surely the farmer deserves the *first* fruits of the season, and he may have them if he will. Lettuce, cabbage, cucumbers, tomatoes, cauliflower, melons, etc., may be upon his table from four to six weeks earlier than usual, by a little painstaking, at a season when the time to do this work can be easily spared from other occupations. On page 53 of last Vol., we gave quite full directions for the construction and management of Hot-beds, but the following just at hand from a stated contributor is seasonable, and will perhaps be of service to many who have not seen the article referred to:

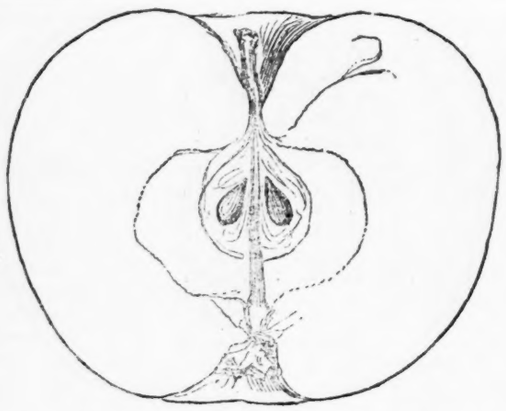
The first thing to be done is to determine the size of the bed wanted. If it is only for family use, and to supply a few friends with early plants, twelve feet long and six wide will be ample. To make the frame, take two inch planks, cut them into suitable lengths, and nail or hook them to cedar posts, set at the four corners. If hooks are used, the planks are more easily taken apart and stored away after the season is over. These posts should be three or four inches square. The frame has, of course, no bottom. The back should be about three feet high, the front a foot and a half, and the ends made with a regular slope from back to front. So made, the rain will be carried off from the sash, and the light will reach all the plants within. The sash may be made like common window sash, except that there are no cross-bars, and the panes of glass overlap each other a quarter of an inch at the bottom, so as to shed rain like the shingles of a roof. The sash should be made of good, seasoned pine, 1½ to 2 inches thick, and painted three good coats. Small panes, say 6x8, are less liable to breakage than larger; and in glazing, they should be bedded in soft putty. For the sash to rest and slide upon, strong strips should be placed across the frame, and morticed in at each end. The following cut may represent the sash and frame:



A hot-bed twelve feet long would need three sashes, four feet wide.

While the frame has been making, we will suppose that the manure, if quite fresh, has been thrown into heaps and turned over and mixed for ten days or a fortnight, so as to promote a regular fermentation. This having been done, choose a good situation for the bed, with a dry bottom, and sheltered, if possible, on the north and west sides. Determine the size you need, and then drive stakes at each corner. Now, wheel on the manure. Strong, littery manure from the horse-stable is the best; but in lack of this, tanners bark may be used, or leaves—oak-leaves are best. If dung is to be had, lay up a bed of it, six inches to a foot wider on all sides than the frame which is to rest upon it, pressing it down gently and equally throughout. The average hight of such beds is from two to three feet. If, as some persons prefer, the bed is sunk a foot or more in the ground, the manure need not rise more than two feet above the surface. Having set the frame and sash upon the dung-bed, with the lower side towards the south, let the whole lie a few days, until the most violent fermentation has passed off. Then, put on about six inches of the best garden mold. The part devoted to radishes and lettuce may have a foot of soil. In a few days the seed may be sown, which should be done about six weeks before the usual time for transplanting to open grounds. Examine the bed daily, and if the heat becomes excessive, run a stake or crow-bar down into the manure to let the steam escape; the sashes, also, may be raised a little. If the ground becomes dry, water occasionally with tepid water; if the heat declines, keep it up by the addition of fresh manure piled up around the sides of the bed. In cold nights, cover the beds with matting or straw.

Pie or Japan Melon.—This new melon is spoken of as a good substitute for apples, in making pies. The seed is very little disseminated as yet. We acknowledge the receipt of small parcels from J. Child, of California, and H. Hale, of Mississippi. We have only enough to experiment with, the result of which will be made known in due time.



The "Baker Apple."

On January 10, the coldest day of the year, a cartman left at our office a barrel (freight paid) which on opening we found to contain a splendid lot of red apples that differed a little from any variety described in the books. They were mostly touched by frost, but not too much so to prevent their being recognized as something unusually good for the season. They cooked well and ate well, and their rich color, fair size, and good condition at this season of the year, indicated them to be worth looking after. The accompanying full sized sketch we took from an average specimen of those sent to us. These apples we find came from Mr. F. A. Rockwell, of Fairfield Co., Conn. They have been grown for many years in Ridgefield, where they are said to have originated nearly a century ago on the farm of Dr. Baker, from whom they were named. This variety was also grown by Mr. Scott, and in some instances has been called the "Scott Apple." Like the Pinneo pear in eastern Connecticut, and many other excellent fruits elsewhere, there seems to have been no effort made to propagate and distribute the Baker Apple, and it has not we think, hitherto found its way into the books or nurseries, though it has been somewhat disseminated in the immediate neighborhood of its native locality where it is held in high esteem.

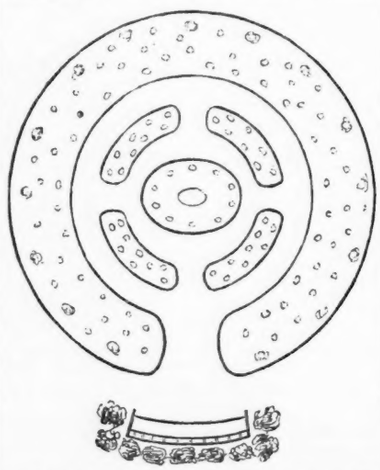
Description.—The tree is said to be spreading, a vigorous grower, and prolific. Fruit, medium to large, oblate, sometimes globular and even approaching to conical. Skin yellowish, shaded with red and crimson, somewhat striped; stalk short and thick, inserted in a regular deep cavity, calyx of medium depth, closed; flesh, yellowish with occasional veins of red, tender, rather dry with a mild sub-acid flavor. Season, from October until April. Is now (*Feb.*) in good condition.

Apple Tree Freaks.

We continue to receive letters from various sections of the country respecting that tree producing half-sweet, half-sour apples, which we described in November (Vol. 17, page 323) It is noteworthy that while nearly all these letters tell how such an anomaly may be produced—viz., by halving two buds carefully and setting a sweet and sour half together—yet none of the writers tell us they have themselves actually performed the experiment or seen it done. We propose that those interested should the present Spring try the operation in the manner described in our December number (Vol. 17, page 368). We have received the favor of some scions from Mr. Denning's tree, which we shall engraft upon both sour and sweet trees this spring, as an experiment. Benj. Borden, of Norristown, Pa., in a recent letter describes a tree he formerly well knew in Warren Co., N. J., which was similar to that of Mr. Denning. "A portion of the fruit ripened prematurely and was sweet. Others, ripening later, were, some sweet, some sour, and some sweet on one side and sour on the other. The main crop which arrived at full maturity later, were entirely sour. They were scarcely to be distinguished from well-grown Rhode Island Greenings; and aside from its novelty, the fruit was considered as worthy of propagation, on account of its superior excellence."

Plan of Flower Garden.

In arranging the flower garden, it is an excellent plan to set "bedding-plants" in circular and other fancy-shaped beds cut out in the lawn. Herbaceous perennials, biennials, annuals, small shrubs and vines, are best kept in a flower-garden by themselves, where their beauties may wax and wane without disturbing anybody's fastidious taste. This little garden should be laid off on one side of the pleasure-grounds, and be partially hid from the highly dressed lawn by thickets of shrubbery. Whatever is disagreeable in its dug beds, and perhaps straggling and sometimes decaying plants, will then be concealed from the chance visitor to the house; and whatever is agreeable in a surprise, and a cosy corner containing all sorts of flowers, will then be realised.



After trying, in his own grounds, square, diamond-shaped, oval and other sorts of beds, the writer hit upon the above plan which suits well. The center bed (oval) has a collection of blue and white flowering plants, such as Larkspurs, Pyrethrums and Achilleas. In the middle, is a Clematis *flammula*, trained upon a harp-shaped frame about seven feet high. This bed is seven feet long and five wide. The four beds, next around it, are occupied with miscellaneous plants; and as they are mostly such as we can recommend for similar gardens, we will mention the names of the larger portion. One of these four beds is entirely filled with Phloxes, early and late. They are *P. Alba perfecta, Van Houttii, Surpass Martin, Striata Superbissima, Abdul Medjid, La Paon, Marianne, Reine Louise.* Another bed has herbaceous Spiræas. Another has Campanulas, Lily of the Valley, Ragged Robin, Scarlet Lychnis, Monkshood and Fraxinellas. Another has Potentillas, Ranunculus, Lythrum, Forget-me-not, Sweet William, Baptiseas, Sweet Violets, Columbines, etc. These beds are about ten feet long and four and a half wide. The outer bed is seven feet in width. Its inner border is decked with low, early flowering plants, such as daisies, polyanthus, Iris, daffodils and snow-drops. Next behind these are set various medium-sized herbaceous plants, with spaces left between them for annual flowers. In the rear of all, are shrubs and vines, such as roses, spiræas, deutzias, Weigelias, laburnums, forsythia, flowering almond, Japan quince, honeysuckles, etc. This flower garden occupies a corner of our grounds, and is so completely surrounded by shrubbery, that it can not be seen from the neighboring street, so that ladies and children may enjoy it at any hour of the day, without being exposed to the gaze of the public highway. On one side, under a group of low trees and shrubs, is a rustic seat, where a company can sit in the shade, and *enjoy* a view of the garden in the hottest day of Summer.

Planning the Garden.

In gardening, as well as in farming and almost everything else, it is best to work upon some definite and fixed plan. Energy will accomplish something, even if working at hap-hazard, but not half so much as if directed by good rules. For this reason, it is wise to begin the horticultural year by drawing up a well considered plan for the garden. And now, this very month of March, is the time to do this.

If your garden is already formed, with vines, dwarf-trees and bushes long planted, it may be too late to make any material change in its arrangement. But if not, a few suggestions may be adopted. One very important item in planning a garden, is to economise room; another is to set the different plants so that they will not shade or otherwise interfere with each other; and another is to set them all so as to facilitate the work of the gardener.

To accomplish these several ends, lay off a border on the four sides of the garden, (which we now suppose to be a square, or parallelogram,) from four to six feet wide, according to the extent of your ground. Devote this border chiefly to grape vines, dwarf trees, etc. As most grape vines succeed best in a warm and sunny exposure, set them on the northern border, where they will be protected from cold winds by a high and tight fence behind them, and may receive the warm rays of the sun. They may be trained on this fence, or, which is better, upon a trellis, a foot or more away from it, allowing a circulation of air behind. The eastern border may be devoted to currants and gooseberries, and the southern to raspberries and blackberries, as they thrive well under the partial shade of a fence. The west border may be occupied with dwarf pears, dwarf cherries, etc. If these vines, trees and bushes do not fully occupy the borders, rows of strawberries may be set around upon their edges, making an ornamental finish, and being at the same time very useful. The remainder of the ground, if quite extensive, may be divided into four squares, with walks intersecting at right angles, in the middle of the garden. If the space is small, one walk through the centre will be sufficient. These walks (one or more,) may have

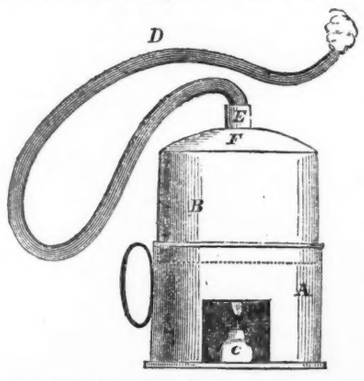
borders on each side, four or five feet in width, and may be planted with dwarf-trees, currant-bushes, and the like. Grapes may be grown on one or more of these borders, if trained on poles in the vineyard-style, and set where they will cast their shadows principally on the walks. These main walks should be covered with fine gravel, to make them dry and pleasant to the foot at all seasons. In the lack of gravel, tan-bark may be used.

The rest of the ground may be laid off in patches for early potatoes, peas, cucumbers, melons, etc., and into beds for beets, onions, strawberries, parsnips, vegetable oysters and so forth. Of course, the whole ground should be thoroughly trenched and manured, and then kept free from weeds; but of these things we need not now speak.

Fumigating Apparatus.

The figure below is from a sketch sent us by John Richardson, of Portland, Me., which he thus describes: *A*, is a lower dish for holding the lamp, *C*. Over this is placed *B*, an upper dish or reservoir, in the bottom of which is the tobacco, sulphur, or other fumigating material. *F*, is a closely fitting movable cover. In the top of this is a small tube, *E*, upon which is attached the flexible India-rubber tubing *D*, made of any desired length. The coupling tube, *E*, may be a simple short tin pipe, and the rubber stretched over it; or it may be made with a screw coupling. The upper end of the pipe *D*, may be carried by hand or on a pole to any part of a plant, or room, directly to worms' nests in trees, etc.

We give this only as suggestive, for as here arranged and described, it is defective. Thus, if the bottom of *B* be closed, no air can circulate upward to carry up the fumes. A portion of the bottom directly over the lamp might be made of wire-cloth or wire-gauze, which would answer for tobacco, but not for sulphur, for that would melt



and run through upon the lamp, and also soon destroy the wire. For holding sulphur a tin cup might be set upon the wire-gauze. To ignite the sulphur, and also to produce a freer upward current, a pretty strong flame would be required. The wire bottom would also need to be made large enough to admit fresh air, for that rising immediately from the lamp would be too much de-oxidized to ignite the sulphur readily.

With these modifications, and perhaps others, this apparatus may be made both useful and convenient, as it can be readily carried about by hand. Something of the kind is needed to aid the horticulturist in his warfare against the apparently insignificant little creatures, that not only continually annoy him, but often, almost before they can be perceived, blast the fruits of month's of careful pains-taking.

The Bread Fruit Tree. (*Artocarpus Integrifolia.*)

The engraving here presented is suggestive of very paradise for those *peculiar* people who think work is a punishment, or to use plain English, lazy folks. To have the plowing and sowing, cultivating and harvesting, grinding, and moreover the mixing and baking, already done to hand, and the fine large loaves of bread hanging temptingly from trees, whose dense foliage supplies all needed shelter, must be glorious indeed. Though the bread fruit tree may not quite equal a modern bakery, in the quality of its products, (we hope it exceeds *some* bake shops), it does supply a wholesome and rather palatable article of food, and furnishes the natives of some of the South Sea islands with a good part of their support. It is said that three trees will furnish fruit enough to sustain a man eight months.

The fruit, which usually grows somewhat larger than a man's head is picked while green. In this state it contains a mealy, snow-white pulp, which is wrapped in leaves by the natives and baked on hot stones and when thus treated, its taste is like that of wheat bread, slighly sweetened. When ripened it has a rather disagreeable flavor, resembling turpentine, although it is eaten freely by the inhabitants. The engraving above is from a photograph taken by Mr. Phillips in the island of Madagascar. The size of the fruit may be seen by comparison with the head of the native, who was purposely stationed by the tree while taking the photograph. This specimen is of a new species, much larger than the common bread fruit, the product being nearly double the size of any other kind known. It may be a seedling introduced into Madagascar from some distant island, as the natives say the tree was unknown to their forefathers.

The Soda-in-Bread Question.

To the Editor of the American Agriculturist:

Having noticed in the Oct. No. of the *American Agriculturist* an article headed "An inquiry about Bread," signed by M. D., to which are appended some editorial remarks—also an article in the Dec. No. by Wm. J. Flagg, I wish to add a few remarks to what has already been said. I do not take the opposite side of the question with the view of being classed by M. D. among *Editors, Lecturers*, etc., but because I believe a very great error is committed by thus drugging our victuals in order to force them into a condition which may, and I think ought to be obtained only by the natural *panary fermentation.*—Granting all that has been claimed by the apologists of *Soda Bread*, "that in the union of *bi-carbonate* of soda with the *acid tartrate of potash*, an innoxious (chemically innoxious) salt (rochelle) and the free carbonic acid are the only results, and, that they exercise no control over the functional action of the organs by virtue of their chemical relations to the system—granting all this—does it follow that such substances as are chemically innoxious may be introduced into the system with impunity? They can not be assimilated into any tissue; and does not simply the mechanical presence of such substances unduly load the circulating fluid with an amount of useless matter, severely taxing the emunctories of the system in their elimination?

The specific gravity of the blood is increased beyond its normal healthy standard. It becomes more sluggish in its movements in proportion as it is loaded with extraneous matter and greater duties are imposed on the various organs. But, aside from the mechanical effects which this double salt produces on the system, it is a purgative—mild it is true—and its use can not be kept up in the system (even in small doses) without inducing a torpid condition of the bowels. Every Physician knows that the continued use (even in very small quantities) of cathartics as well as stimulants and opiates so overcomes the natural sensibility of the organs upon which they exert their specific influence, that in time, they fail to respond to their appropriate stimuli. Now the natural stimuli of the alimentary canal are the residual elements of our food, and the secretions of the liver and pancreas. When in addition, we are constantly adding an agent whose tendency is to stimulate unnaturally, the *sensibility* of the organs passes gradually from under the influence of its natural and appropriate stimuli to that of the unnatural agent. The reason as the Editor justly says that the *gustatory* and *olfactory* senses are no longer good evidence in the present case, is because the natural *taste* and smell has been benumbed or overcome by the use of condiments and other accompaniments of civilized life. So with the natural peristaltic action of the bowels; when for a long time subjected to the influence of any unnatural stimulus; they become more or less insensible to the action of the residuum of the food, and the secretions of the liver.

So far we have treated the subject as if in the use of *Soda* and tartaric acid, there were always just those *nice* proportions of the acid and alkali as will *exactly* neutralize each other. Now this might be the case, provided every housewife was

a Chemist, and had the essential implements to weigh out each substance in just the right proportion; but unfortunately for the neutralizing theory this is not the case. Teaspoons and guesswork are very *crude balances* for determining the just proportion of each ingredient. The result is, we think, in almost every case there is an excess either of the acid or salt. This being the case, it will be seen at once that whatever effect would result from the use of either the tartrate of potash or the bi-carbonate of soda without the aid of the other as a *neutralizer*, will result where there is an excess of either the *acid* or the *soda*—and that, in the exact proportion of the excess.

In arguing that the use of soda was not injurious *because* it was *neutralized* by the acid, M. D. has virtually admitted that when not thus neutralized it (the soda) is injurious. Now does any one suppose that there is more than one case in ten thousand where soda and tartaric acid are used, in which the house-wife *happens* to get *exactly* the right proportions? Suppose she chance to get the exact proportion one time in a thousand, then according to the theory there will be *nine hundred* and *ninety nine* times that the use of these substances will be injurious, because not in the exact proportions.

It is well known that the gastric juice is acid in its reaction, by virtue of the presence of free Hydrochloric acid in the proportion of about 3 parts in 1000. It is pretty generally agreed among Physiologists that to the presence of this acid the gastric juice owes its solvent powers. An excess therefore of bi-carbonate of soda, or any other alkali would in a measure neutralize and destroy the digestive powers of this fluid. As the albumenous substances are only acted upon by the gastric juice; and, as its solvent powers depend in a great measure upon the presence of Hydrochloric acid, it will be readily seen that indigestion in some measure will be the result. But there is a great portion of our food which is not affected by the acid juice of the stomach but is reserved for the action of the alkaline secretions of the pancreas and liver. To this class of food belong starch, sugar, gum, cellulose, oils, fats, alcohol, etc., all of which depend for their solution upon the alkaline fluids they meet in the duodenum. If now there is an excess of the acid instead of the soda, the digestion of these important substances would be materially impeded.

But as we have been notified to be short in our articles, I must close with the subject but barely begun. L. D. J—, M. D.

Morrison, Ill.

Entertaining our Friends—Chamber Furniture, etc.

BY ANNA HOPE.

We all like to make our visitors comfortable, and to have them take with them pleasant memories when they leave us. To secure this it is not *necessary* to devote all our time to them, nor prepare a sumptuous table, or an elegantly furnished chamber. The heart's welcome is the first requisite, and that has the magical power of casting a rosy light over what else, might be as cheerless as the arctic snow when the sun is hidden. Mere words of welcome are of but little value, yet when words are freighted with love, they are as precious as pearls.—Cultivate, then, not only kindness of heart, but kindness of manner, and kindness of expression. I have often thought of the tenderness, and fullness, and freedom, with which Jesus expressed his love for his disciples, as an example for us in our intercourse with our friends.

We can not, of course, treat all guests with equal cordiality, for we can not love all alike; yet we can always be courteous, and, if we seek it, can almost always find some reason for a warmth of manner, that will be agreeable to those who visit us. It is a pleasure to confer happiness, and this of itself is enough to make our hearts glow, and it brings its own exceeding great reward to ourselves, even when but for this we should prefer to be alone.

If our time be necessarily so occupied that we can give but little of it to our guests, let us tell them so, and provide for them other means of enjoyment, or leave them to their own resources. I think it is generally more pleasant for a visitor to have some hours of the day to herself, unless the visit must be very brief. To talk incessantly from morning till night is wearisome, if the friendship be not of the most intimate character, and even then there is most exquisite happiness in quietly enjoying the presence of the beloved. There are thoughts and emotions so delicate and spiritual, that we have no words for them. They are perceived by the soul, and are spoken by the soul without audible language. Silence then becomes more eloquent and communicative than speech.

We must be careful not to let a guest think that she increases our cares, or if she does, we must make her feel that the pleasure of her company more than counterbalances it. I am not counseling falsehood, for I believe we can be both true and courteous at the same time. If our hearts are loving, we regard the happiness of others as we do our own, and we find much of our enjoyment in making others happy.

See that the guest chamber is provided with all that is necessary to comfort. Be sure there is soap on the wash-stand, and that the soap-dish is clean. Have plenty of water in the pitchers, and do not forget the tumbler for brushing teeth. Provide a pail or tub, or something of the kind for slops. The painted tin sets, which comprise a pail for water, and another for slops, and a foot tub, are desirable. Have a variety of towels, coarse and fine, on the bars, or in the wash-stand drawer. A wash-cloth is convenient. These may be made of the same material as the towels, and should be hemmed. Do not use rags either for yourself or your friends. Wash-cloths knit of tidy cotton are soft and nice. A soft sponge is good, but unless it is your own it does not look as inviting as a clean, fresh cloth.

It is well to have a few books in a guest chamber. If they be of the right kind, they will drive away any solitariness that may seek to enter. Pen, ink, and paper, too, are desirable. A low chair, or an arm-chair, or a rocker, are comforts. Small boxes about the size of ordinary soap-boxes, with the cover hinged on and neatly covered, are very convenient. So are larger boxes, especially if there be but little closet-room. A hassock, or footstool of some kind, is useful.

If visitors, ladies or gentlemen, call without their baggage, to pass the night with you, furnish them with a night-gown, and have a nice brush for their use. A little whisk broom is often convenient. Have pins, both large and small, on the cushion, and a box of hair-pins on the bureau. Have also matches in a proper safe, and a vase, or something of the kind, to receive the burnt matches. A shell lying on the bureau or suspended near it, is prettier than most vases, for this purpose—as it also is for flowers.

When you have done all you can for your guests, do not trouble yourself with the thought that you have not made the visit pleasant to them. Above all, do not tell them so, and thus compel them, if you have failed in this respect, to tell an untruth, or wound your feelings.

If you wish your friends to prolong their visit, invite them to do so, as earnestly as you please, but do not so urge them, as to make it difficult for them to go if they consider it, for any reason, best to leave you. It is as true hospitality to "speed the parting," as to "welcome the coming guest."

Oil the Doors and Locks.

A creaking door is always a nuisance. Its noise is unpleasant to all, and particularly distressing to the sick. With a feather occasionally introduce a little oil or even melted tallow or lard into the joints of the hinge, and all will go smoothly. Locks should also be kept well oiled. Apply a little oil to the blade of the key, and also to the bolts, especially to the side of the bolt that strikes the catch or holder, when shutting the door. This will prevent the necessity of "slamming," saving much patience and lessening the wear of the door and the parts around it. Once in a while take off the lock and oil all the parts within, where there is friction; it will work easier and last very much longer.

Blocks for Doors.

Every one has noticed unsightly places on the walls behind doors, where the knob, or key of the door has broken away the plastering by being brought against it when the door was thrown back. This may very easily be avoided by fastening a small block on the floor, against the base board, the block being sufficiently long to keep the knob clear from the wall. The block will look neater if covered with carpet. This is better than a movable block or brick which is sometimes used, as it is always in the place when wanted; while the movable blocks, being nice play things for children, are often removed.

Lamp Lighters

Although matches are very cheap, they should not be wasted. Many of them can be saved by having small papers rolled up spirally, ready upon the mantel or other convenient place to light the lamps or candles. The making of them will be just the thing to amuse some of the little folks who are so often asking for something to do; and who will be pleased to do something useful. A paste-board box neatly covered with fancy paper, in which to keep the lamp lighters, may be made a pretty mantel ornament. We have seen handsome ones of perforated card-board, embroidered, and trimmed around the upper edge with chenille.

Recipes.

Home-made Rusk.

This recipe and the following three were contributed by the lady who made the muffins, described last month (page 55), and one of our associates vouches for their excellence: Boil and mash two good sized potatoes; add to them a teacup of yeast, and flour sufficient to make a good sponge, and 1 quart milk, 1 lb. sugar, and ½ lb. butter. This should be kneaded soft, and left to rise over night. When quite light make into small cakes, and bake in a quick oven.

Cocoanut Cake.

Not the candy known by that name, but a baked cake that was exactly to our taste at a festival or gathering under the auspices of the Daughters of Temperance on New-Year's Day. We marked it "approved" and asked for the directions, which were given as follows: Rub together 1 lb. sugar, ½ lb. butter, and the *yolks* of five eggs.

Beat the whites of the eggs to a stiff froth, and add to the above, and stir in ¾ lb flour. Lastly, mix with these one cocoanut grated, and bake as you would any ordinary cake. If red-colored cocoanut candy is used instead of the cocoanut, it will make the cake look very pretty. Prepared thus it is sometimes called "beef-steak cake." If you wish to dream of unheard-of and terrible monsters, eat plentifully of it just before bedtime.

Boiled Bread Pudding.

An economical dessert and a very good one, also. Take about one pound of the scraps of dry bread you have saved, and break into small pieces; pour on enough hot water to soak it thoroughly. Let it cool, and then mix with it 1 quart of milk, 3 eggs, and a little salt. A few raisins will not injure it. Put in a pudding bag and boil it an hour. Serve it up with molasses, or sauce according to your taste.

Apple Preserves.

Almost everybody can make apple sauce, and some make it very good; but this dish for a variety is quite a treat. Pare and core the apples, cutting them in halves or quarters as you like. For every pound of apples take ¾ lb. sugar and make a syrup, by adding water sufficient to keep it from burning, while heating it over a slow fire. When the syrup is boiling hot remove it from the fire, put the apples in and let them stand one night. This will toughen and prevent them from falling to pieces. Then boil them over a slow fire until they are cooked tender. If loaf sugar is used, the preserves will be very clear and handsome. If the syrup is made of brown sugar it should be well skimmed before putting in the fruit, and also while cooking.

Uncle Frank's Chat with the Boys and Girls.

RAMBLES ABOUT LAKE SUPERIOR.

I spent a great portion of the Summer before last in the Lake Superior country, and I assure you I was intensely interested in my adventures there. It is situated so far north, that the climate, the face of the country, the races of animals and vegetables, all strike us as peculiar and novel. I wish there were more birds in that region. It is too cold for most of the songsters that gladden our hearts here in this milder clime. Lake Superior is of itself one of the wonders of the world. Think of a sheet of fresh water four hundred miles long. The navigation of it seemed to me almost precisely like that of the Ocean. In proceeding from the Sault Ste. Marie, to Marquette, we are out of sight of land for ten or twelve hours. The depth of Lake Superior is quite respectable, too—in many places little short of one-thousand feet. The water is as clear as crystal. I have seen every object on the bottom, at a depth of twenty-five feet, as distinctly as if I had been looking through glass.

The place which I called my home while I staid in those northern regions is called Marquette, so named after one of the early Jesuit missionaries who labored there. These missionaries, by the way, were very zealous and self-denying men. They devoted themselves to the work of converting the Indians with an energy seldom equaled. And they did a great deal for the red man. They gave him a measure of civilization, and they introduced him to a religion as unlike his as light is to darkness—though we may differ as to its value. One of the churches these Jesuits formed at La Pointe, (situated on one of the Apostle Islands) still survives the changes which that district of country has undergone. The edifice is comparatively modern; but it has always been supported by the society of Jesuits, from the time of Marquette till now. I happened to be at La Pointe on the Sabbath, and strolled into this little church during the services. It was full almost to overflowing. Quite three-fourths of the congregation, I should think, were Indians, dressed in all sorts of ways, and in some instances, in scarcely any way at all. I didn't take much of a fancy, I must say, to the Indians about Lake Superior. Those who are wild, and who spend most of their time in the woods, only coming among civilized people at rare intervals, as a wolf will come prowling around a farm-house, after something to appease his appetite, are just the most disgusting specimens of humanity, so far as the outward appearance goes, that I ever saw in my life. I can't think the men comb their hair oftener than once in half a century. A blanket is all they ever wear in the shape of clothing, though they are loaded down with cheap trinkets. Their faces are hideously and grotesquely painted, and turkey's quills abound in the matted hair.

But about the pastor of the little church at La Pointe. He was a very young man, with a countenance full of good nature. His sermon (which was in French) was a mere talk, but no doubt quite up to the standard of the intellect of his hearers. I was so well pleased with his appearance, that I followed him to his little room in the rear of the church, and had a long talk with him. I found him a fine scholar and very much of a gentleman.

The two great sources of wealth in this northern peninsula, are the iron and the copper mines. From Marquette is a good point to visit the iron region. About 16 miles from this place, companies are working the mines. The miners don't have to go down into the bowels of the earth to get the metal. It lies above the surface, in the form of huge rocks or hillocks, and is separated from its bed and made ready for transportation by blasting. There are literally whole mountains of solid iron where the miners are at work.

The copper region is further west. In these mines, it is necessary to go down hundreds of feet into the ground. I threaded my way through one mine. It is no child's play, I assure you; we put on a miner's dress, and stick a tallow candle on the front of our caps, and then walk, or go carefully (and perhaps tremulously) down a steep ladder, or crawl, worm-fashion, as circumstances require.

Trout-fishing is fine in every part of the Lake Superior country which I visited; I used to catch enough for a dinner in a very short time; though the little fellows, like all the rest of their race whose acquaintance I have made, were very shy, and frequently eluded all my art, and laughed at all my powers of persuasion. But enough about this topic now.

THE FIRST OATH.

There, my little friend, that will do. You might as well stop right where you are. Swearing is evidently not in your line of business. I guess this is the first time you ever attempted any thing of the kind—is'nt it? Well, I thought so. You make as bungling work of swearing as a young rooster does of crowing. It would really be laughable, if it wasn't wicked. Now, look here, my friend, let me give you a morsel of advice. Never undertake to swear again, as long as you live. There is nothing good in it. I haven't a doubt that you could learn the art to perfection, after some practice, under a competent master—some one who has made profanity a sort of profession. But it will not pay. Swearing is not a desirable accomplishment for a man, though many boys of your age seem to think so. It is low and vulgar, besides being wicked. Pray don't learn to use profane language. The habit is like that of drinking rum. If you don't keep a sharp lookout, you may fall into it before you are aware of what you are doing; and having once formed the habit, it will be almost sure to grow upon you, until you can hardly keep from mixing up more or less profanity with all you say. Set a watch over your tongue, my dear boy. Let it never speak any word which you would be ashamed to have your mother hear

Aunt Sue's Letter.

DEAR MR. EDITOR:—You have provided your "boys and girls" with a "Grandmother" and an Uncle Frank, will you admit into the circle an "Aunt Sue," just for a few minute's chat? I want to tell them what fun we had the other evening, after all the lessons were learned, and when we all drew closer round the fire, to keep it warm. "Let's play *I'm coming*," said Charley. "Oh, yeth, do:" chimed in Jimmy, who has mastered the alphabet, with one or two crooked exceptions, but not a single a—b ab "You begin, Aunt Sue."

Aunt Sue.—Well, I'm coming.

Minnie.—What are you coming by?

Aunt Sue.—R. C.

Charley, Fanny, Mary.—Rail-car.

Aunt Sue.—No.

Minnie.—Rocking-chair.

Aunt Sue.—Yes. Now it's your turn Minnie.

Minnie.—Well I'm coming by F. P.

Charley, Fanny.—Flower-pot—front parlor.

Mary.—Fire-place.

Minnie.—Mary has guessed it.

Jimmy.—Now let *me* do it. *L.*

Jimmy looks very proud, and we all guess Lion, Lady, Locket, Lily, and everything we can think of beginning with L.; all wrong. "Give it up, Jimmy, What is it?" Jimmy is delighted that we are all so puzzled and at length tells us it is "*elbow?*" Please bear in mind that Jimmy is between 4 and 5 years old, the rest of us all under 10—with the exception of Aunt Sue, who is a trifle more than that.

By and by Jimmy wanted to have "another turn," which was willingly accorded; and after looking round for a subject, at length announced that he came by *Y*.

Again we were unsuccessful; and no wonder: Master Jimmy had come by a *wine-glass*! Now I rather approve of the young gentleman's economical way of spelling *L-bow* and *Yn-glass*, and think he deserves considerable credit for ingenuity. Who agrees with me?

AUNT SUE.

Welcome, welcome, Aunt Sue! The Editor is ever so glad to have you join *our* company. He has been going to send you a special invitation this long time. With Grandmother, Uncle Frank, Aunt Sue, and the Editor—and—and—the two hundred thousand Boys and Girls that were reckoned up last month, isn't there a good time ahead?.....That Jimmy is a cute one. He *must* belong to our company. That's a nice play, Aunt Sue. We shall go right home and play it with our Willie and Charlie to-night—though Charlie will hardly join us—he's so little, but his sister Sarah will speak for him.—ED.

Wrong End Foremost.

"O father," said little Johnny, as he came out of the garden one bright morning, before breakfast. "The beans have come up wrong end foremost!" He had been very happy in dropping the beans into the hills for his father when they were planted; had watched impatiently for them to come up; and now, when the sprout had pushed the bean itself up, he thought there was something wrong.

"Come, and see," he said, "They *have* come up wrong end foremost, and split in two." "No, Johnny," said his father, "there's nothing wrong about it. The bean swells in the ground, and sends out two sprouts, one of which goes down into the ground, and forms roots to draw from the earth food for the other sprout, which pushes upwards, as you see, and as it grows, will bear the leaves and the new beans. These two halves of the bean that was planted—"split in two," you say—are only shells that will decay, having given life to the sprouts, which form the growing roots and stem. All vegetable life springs from *death*. The seed dies in giving life to the new plant, "What thou sowest is not quickened except it die." So says the Great Author of all vegetable, animal, and spiritual life. Our souls will rise from the death of our bodies to a new and endless life. The "Natives," when *potatoes* were first introduced into this country, picked the balls, or "apples" from the top and ate them, thinking *they* were the *new* potatoes, and all that was to be eaten. The balls were so bitter, they despised them, and could not afterward easily be persuaded to eat *potatoes*, which are *so* good, as you know They were ignorant, and made a great mistake, as you did when you thought the beans came up *wrong end* first.

Different vegetables and fruits grow very differently—some *in* the ground, as the potato and turnip. Some *on* the ground, as the melon and squash. Some on a small bush or stalk, as beans and grains, and some on trees, as apples and pears. Variety is one of the beauties of creation. But none grow *wrong end foremost*. "As for God, his way is perfect." God makes no mistakes.

M.

THE SICK CHILD.

(Engraved for the American Agriculturist.)*

The Editor takes great pleasure in presenting the above beautiful and touching picture to his young readers, and he is only sorry they can not with himself take a look at the original picture, painted much larger on canvass with all the appropriate colors. But the artist has cut it on wood for us so well, that it is very life like. One of the first things it teaches is the love and solicitude parents have for their children—no matter whether the parents be rich, or like those here shown, poor day laborers. This child may have been naughty oftentimes and needed and perhaps received punishment. But now it is sick, and see the anxiety of the parents. The father has left his work and gone for a hare, which he has killed and brought in to make a broth for his child. The mother has in the meantime prepared a medicine which must first be given. Mark the tenderness upon her homely but loving countenance. Such is the affection, children, which your parents bear to *each* of you, whether you appreciate it or not. Will you not return it, and at all times requite that love by trying to be more kind, loving and obedient? If our picture shall in any degree lead you to do so, we shall be glad that we have presented it. We must however, say more of this scene, but we may hardly do better than to quote a foreign writer who thus speaks of the picture: Can we not enter deeply into the maternal tenderness of the action of the mother, who, although perhaps only stirring a basin of broth, has that dignity in our eyes which gathers around and ennobles one in the performance of a loving deed. In fact, home-feeling sanctifies the place. In that rough cottage interior, with all the coarse incidents of a laborer's life that have sprung up about this poor family, there is something holy and good that may well elevate it above many a loftier home.

The habitual affection which holds this family lovingly together, is strikingly exemplified by the artist, in the sick child's clinging as he does so closely to the father, thereby telling a tale of many a romp and rough game between the poor ailing infant and its robust parent. See the care with which he holds the little one, half afraid that now in sickness it could not sustain the rough contact with his coarse though loving and tender grasp! Look at the homely grace of the mother as with pious regard, wholly absorbed in the maternal task, she bends forward to catch some share of the reply to the man's inquiry of the progress towards health of the little patient! Her face is far from beautiful, but dignified with tenderness, made beautiful by love; and this is where the art of the painter has come into play in such a manner that we can not fail to be interested even in the sordid details of the household, so many signs of which are scattered about—as the cracked looking-glass on the mantel-shelf, the basket, the dead hare, the cupboard, &c.

But the crowning interest of the picture is that most extraordinary rendering of emotion which the face of the child presents to us. Nor should its action and attitude escape our observing admiration. Notice the shuddering repugnance of its manner in looking at the basin, hardly able even to cast its eyes upon it, and the huddle together of its little feet. The other child's calm indifference, being thoroughly wrapped up with delight with his father's pipe, is curiously and characteristically in contrast with the dolor of the little invalid, and its introduction a capital thought of the artist.

* The large original painting from which this engraving was taken, was made by Mr. Clark, in England, where it has produced quite a sensation in art circles. We received a copy several months since, and gave it out to be engraved for the *Agriculturist*, supposing we should probably issue the first copy published in this country. Since its preparation, however, we find that an engraving on a little smaller scale was made for the National Magazine, and the same cut used in the "Good News," issued by the Methodist Tract Society, in both of which publications we chanced to overlook it. It will, however, still be new to most of our readers.—ED.]

THE EDITOR IN FOUR "CORNERS."

Well boys and girls, your editor is fairly "cornered," as they say of a horse hard to catch, when they get him into an angle of the pasture. The "Doctor," whom the editor generally manages to keep out of the way of, has cornered him at last and here he has kept him in a *corner* room for four days, telling him his head and eyes have been overworked, and that without rest in a dark room he would soon lose the use of both. This imprisonment has been borne with an ill grace; but to make things worse, the printer sends over word just now, that the matter prepared for this and the preceding fifteen pages has all been "made up" just as directed, but here is a *corner* left which must be filled up at once or the "pressman" can not go on with printing the *inside* sheet. But we have nothing ready to send him. Uncle Frank has sent in his column, and sailed South, AUNT SUE has very opportunely given us a short letter. (We hope she will send many more.) "M" has sent us a pretty story of the beans. We have previously said all that is necessary about the picture on this page. Grand-mother has gone on a visit we believe, and we do not yet hear from her. The answers to problems are not all in yet, and they must be put off for next page, which being on the *outside* sheet, will go to press a week later; and besides, all the boys and girls letters are away over to the city. We are in no writing or thinking mood to-night, and own up to being fairly *cornered*. We give it up. Printer let the rest of this *corner* go *blank!* No, that won't look well. What *shall* we do? Here William, get pen and paper and write down just what we are thinking of while we think it over aloud. The printer may print what you write and put in this *corner*. It is the best we can do. Had we not long since erased the word "*can't*" from our dictionary, we should have been sorely tempted to send that simple word to fill this space instead of what the printer will now get.

"LONG DAYS."

How long these days are—the first four consecutive days we have been kept from our business in many years. Even now we are only just sick enough to make rest necessary, while solitude and idleness are still irksome. How slowly the hands of the clock move up there! Tick, tick, tick! How many ticks it takes to make a minute! How many for an hour! How many for a day! What makes time move so slow? When we were not shut up here the days were all too short. Ah, here is the reason. We are now *doing* nothing. We have no business on hand which we are striving so hard to get through with that we "take no note of passing time." How much these days seem like some of our boyhood days, when we had no special enterprise on hand. Turning fanning-mill, harrowing Summer-fallow, and driving a double team, always come up to mind as the most tedious labors we had

to perform. Plowing had its charms. To cut a straight well-turned furrow required constant exercise of skill. The mind was occupied and the days glided swiftly. To rake before a threshing machine was hard lusty work, but there was a constant excitement about it. To mow or cradle was monotonous, and yet there was a continual exercise of skill to make a smooth cut and lay an even swath. But to drive team for somebody else to plow, or to drive a harrow round and round on a blank ten or twenty acre Summer-fallow, or turn a crank all day was dog-in-the-mill work. As a boy on father's farm we could not so well look ahead to personal interest in the results of our work; and so the motive was not so much to finish one field and go to another, as it was to *pass away the time.* How slow the sun did move in those days. And how slow it has moved during the past four days.

LESSON. To make time move swiftly and agreeably it is necessary to be engaged in something in which we are interested—something we desire to accomplish as soon as possible.

How is it with you boys and girls? Do your days pass heavily? Is it a great while from sunrise to sunset? If so, you may depend upon it, you are laboring or studying with a wrong *motive.* If you are at school, does it seem as if an age intervened between one recess and another, then you are not studying to become wise, but because you are compelled to go to school, or go willingly because you thus escape work at home, and get a few moments of play in going and coming, and at the recesses. If you go with the determination that you will learn every lesson thoroughly, you will find the days much too short.

New Problems.

PROB. 35.—Suppose the driving-wheels of a locomotive to be six feet in diameter, and to make four revolutions per second: At what speed must a horse twenty feet from the track, be driven, to cross it before the engine arrives, if the engine is three hundred feet from the crossing.

PROB. 36.—Proposed by (?), Allegany Co, Pa.: 3 Farmers, A. B. and C., went to market to sell eggs. A. had 10 eggs, B. 30, and C. 50. They each sold their stock at the same price per egg, and after all were sold, they found that each had the same amount of money. How was this done?

ANSWERS TO PROBLEMS.

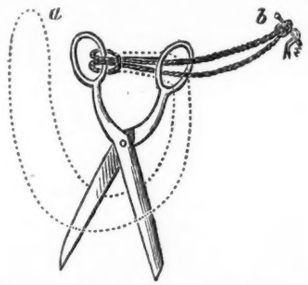
To spell *Butt*, using 14 letters? *Be you double tea.*

What short word does "8 *chew tea*" spell? Pronounce the words rapidly and you have: *h-u-t.*

What short word does "*Are* 60" spell? Pronounced quickly you have: *r-a-t.*

PROB. 33 (See page 58).—*Ans.* Let the boy make a loop by doubling his string in the middle; pass this loop under the part of the other string tied around the girl's wrist; then throw the loop over her hand and let it come back under the string around the wrist on the back side, and the two persons will be separated without untying the strings from their hands. By the letters received we judge this and the following puzzle have created not a little amusement. One lad writes that he and his brother tumbled round on the carpet for half an hour, trying to turn their hands out, but finally solved it with shears.

PROB. 34 (See page 58).—*Ans.* To remove the shears, take the loop end of the string, put it through the right handle, and carry the loop around to *a*, as shown by the dotted line in the new cut here given. Let the loop be



carried still further towards *b*, until it has passed entirely around the whole shears, and you can then remove them, as the string will slip out through the handles. The two problems, 33 and 34, have been answered substantially as above by: J. S. McNay, Alleghany Co., Pa.; J. R. P., Cuyahoga Co., O.; P. M. Sutton, McHenry Co., Ill.; H. J. Legg, Ulster Co., N. Y.; I. Hoffman, Hunterdon Co., N. J.; J. Brooks, Shiawassee Co., Mich.; J Meixel, Northumberland Co., Pa.; J. & M. Campbell, Delaware Co., Ind. (with a very pretty drawing of the shears and string); J. & E. Coyte, Bergen Co., N. J.; C. H. Trexler, Bucks, Co., Pa.; J. A. Miller, Jefferson Co., Ky.; T. Kinney, St Lawrence Co., N. Y.; H. S. Gold, Litchfield Co., Ct.; A. S. Caldwell, Preston, C. W.; J. D. Shipley, Rockingham Co., N. H.; S. T. Rice, Crawford Co., Pa.; C. Evans, Alleghany Co, Pa.; W. A. Buckhont, Oswego Co,, N. Y.; S. H. Ward, P. C. Asten, R. Duncan. S Duncan, Z. Duncan, & G. Smith, Essex Co., N. J.; Henry Look, Franklin Co., P.; J. R. Merryman, Hanford Co., Md.; E. Avery, Monroe Co., Mich.; R. E. Flickinger, Juniata Co., Pa.; L. & B. Cass, Grafton Co., N. H.; H. La Fetra, Clinton Co., O. (glad to hear you speak well of your teacher, it 'speaks well for you); A. L. Collins, Miami Co., O.; R. C. Treat, Hartford Co., Ct.; H. D. Lewis, New-Haven Co., Ct.; C. M. Ross, Fayette Co., Ind.; W. Hill, Columbiana Co., O.; W. Schwebel jr., Adams Co., Ill.; A. Engle, Lancaster Co., Pa., R. L. Hudson (3 ft. high), Jefferson Co., Ind.; M. C. Clark, and L. C. Jordan, Cumberland Co., Me.; C. Thomas, Carroll Co., Ind.; J H. Wilson, Montgomery Co., O; J. R. Exline, Tuscarawas Co., O.; J. & R. E. Pearsall, Rock Island Co., Ill. (We solved your puzzle); R. A. Gordon, Jefferson Co., Ill.

PROBLEM 31.—*Answered.* The **1,283,000,000** present inhabitants of the earth being gathered upon a plain and each allowed a yard square of standing room:

1st.—How many acres would they cover?
Ans. 265,082 and 78-121ths.

2nd.—How many square miles? Ans. 414 and 371-1936.

3d.—If standing in a square body, how far would the multitude extend each way? Ans. 20m.617 yds.

4th.—If they stood in a *circular* mass, what would be the distance through the circle? Ans. 22m. 1697 yds.

Suppose them to form in marching order, like soldiers in single file, with only 3 feet for each to walk in (no allowance made for first man):

5th.—How many miles would the line extend?
Ans. 728977m. 479yds.

6th.—How many times around the globe would the line reach? Ans. 29 times and 3977m.479yds.

Suppose the earth to be exactly 25,000 miles in circumference, and three-quarters of its surface to be covered with water and rocks.

7.—How many acres of tillable land are there left for each man, woman and child? Ans. 24a.1r9sq. rds.

Suppose only one person out of *thirty* dies each year.

8.—How many die every 365 days? Ans. 42,766,666.

9.—How many die every day? Ans. 117,168.

10.—How many die every hour? Ans. 4,882.

11.—How many die every minute? Ans. 81.

12.—If every human being in the whole United States (say 25,000,000) were swept off in a single year, How many more would die elsewhere each year, to equal the whole number of deaths annually in the whole human family (allowing as before, only one in 30 to die)?
Ans 17,766,666.

Twelve questions were all answered correctly by: E. E. Woods, Caledonia Co., Vt.; C. M. Ross, Fayette Co., Ind.; W. R. Scott, Bristol Co., Mass.; D. Hocker, Dauphin Co., Pa.; T. Lamson, Gratoit Co., Mich.; E. V. Pufford, Litchfield Co., Ct.; E. Engle, Lancaster Co., Pa.; J. H. Wilson, Montgomery Co., O.; W. E. Hill, Columbiana Co., O. *Eleven* questions answered correctly by: W. Homer, Erie Co., N. Y.; A. F. Kelly, Providence Co., R. I.; W. Household, Westmoreland Co., Pa.; W. Schwebel jr., Adams Co., Ill.; T. Louden, Blair Co., Pa.; J. Giles, Johnson Co., Ind.; G. Elcock, Morris Co., N. J.; J. S. McElwain, York Co., Pa.; H. S. Merryman, Hartford Co., Md.; H. H. Nichols, Burlington Co., Wis.; S. Armstrong, Col. Co., Wis. *Ten* right by: H. E. Twintor, Windham Co., Ct.; T. H. Smith, Fayette Co., Pa.; R. C. Treat, Hartford Co., Ct.; J. Fenton, Chatauque Co., N. Y.; H. La Fetra, Clinton Co., O. (thank you Harry for your 30 subscribers, we have sent the 6 nos); L. L. Smith, Columbiana Co., O.; J. J. Johnson, Bucks Co., Pa.; M. C. Clark & L. G. Jordan, Cumberland Co., Me. *Nine* right by: R. Mackwick, Jefferson Co., N. Y.; R. B. Lawson, Steuben Co., N. Y.; H. C. Patterson, Chatauque Co., N. Y.; B. Hacket, Morris Co., N. J. *Eight* right by: G. S. Geyer, Warwick Co., Va.; B. Snively, Blair Co., Pa, (very neat). *Seven* right by: H. Look, Franklin Co., Pa.; C. Avery, Munroe Co., Mich. *Six* right by: Wm. F. Lowry, Ohio Co., Va.; E. O. Redlon, Ripley Co., Ind.

For the American Agriculturist.

The "Sextant's" Reply tew "Gasper."*

O Gasper! your 'peal is heard, but not yit
Acted on, for reasons plain as nozes on foax fases.
Don't you think i no witch side my bred is butterd?
Spose i drop the winder & let in "pewer Are"
A mouful apiece or so, or let the bad Are out,
(Witch is the same think in Duch or Inglish),
Whoad sta threw sarmon time in weather cold as zero,
Or even in a windy day in Summer?
The foax would leave the metinhouse,
Chtidren, men, & wimmin, specially the latter.
Tha dont want "pewer Are" no such think,
Dont *i* no thats tended metinhouse
This 40 year & over, most all my life?
Wy, tother Sunda, when the fiers was blazin
In the stoves as hot as peper, ize told
Tew *shet the dore* that wasnt open ½ an inch,
& dont i no that when the parson looks
That wa, he menes the same & more tew,
& tother da, ize told to putty up
That winder, cause the wind blue in.
Bad breths is bad enuf but not so bad
As cold, so people thinks & so dew i.
Metinhouses is grate placis for ketchin colds,
& takin konsumpshuns and such like ales.
Taint nothink tew *me*, i tends for the hull
Kongregashun, & not for 1 nor 2 nor 3.
Ef *tha* want the winder up or down or dore open,
Wy dont tha sa so & tha shall have it,
Awl the dores & awl the winders & *holes cut tew.*
Wy dont you talk tew *them* & not tew *me*,
Mebby tha dont no, & mebby i dont no
Wat tha want & wats good for em.
Mi bizness is to give them wat tha *tell me.*
The preacher teils them how to act at meetins,
& ef you no more nor *him* wy don't you *preach.*
Nowmebby you is rite, & i are rong:
No matter, I shall dew as i are told.
Ive bin tew school tew long tew disobey
Order, cause ef i did, who then would be
THE SEXTANT.

* We hope every reader has seen the "Appeal to the Sexton," published in the December *Agriculturist*, (Vol. 17, page 372.) It is worth five times the cost of that number. This reply, by the Sexton, sent us by a subscriber in Ontario Co., N. Y., is a capital thing—telling too much truth, unfortunately.—ED.

Into which are thrown all sorts of paragraphs—such as NOTES *and* REPLIES *to* CORRESPONDENTS, *with Useful or Interesting Extracts from their Letters, together with Gleanings of various kinds from various sources.*

Unused Letters.—We have hundreds of notes, suggestions and queries, which have accumulated from business letters received at beginning of the year. These must needs abide their time—but will be worked up as room permits.

Read the Advertisements.—Many new ideas will be suggested, and much useful information gained by a careful perusal of the almost unprecedented collection of good and appropriate advertisements with which our columns are crowded this month. This only would justify us in allowing them to encroach somewhat on our reading columns. We excluded a large number offered, from their inappropriateness, and were still compelled to disappoint many regular advertisers, for whom we could not find room.

Two Valuable New Books are announced in our advertising columns—viz., the New Edition of Downing's Landscape Gardening, and American Weeds and Useful Plants.....The American Female Guardian Society announces a volume, entitled "Wrecks and Rescues."

Basket Item worth $15.—A subscriber (J. F. K.) of Mason Co., Ill., writes: "I dislike to trouble you with these questions, but you will excuse me when I state that your answer to one question in the *Agriculturist* Basket, last Spring, saved me $15." We hope the aggregate value of these items may yet amount to fifteen millions.

What is Muck?—J. M., Luzerne Co., Pa. Muck is a general name for decayed vegetable matter mixed with soil—such as is found in swamps, woods, and places where plants, vegetables, etc., have partially rotted, and formed a black mold or soil. The black "settlings" of vegetable matters, washed from high to low lands, are good "muck."

Planting on newly plowed Meadows.—O. J. Seward, Bergen Co., N. J. Your neighbor was probably correct in attributing the failure of his corn to worms at the root. The insects producing the grub, have an opportunity of working undisturbed on meadow lands, and instinctively seek the shelter they afford. Late Fall plowing of such lands exposes the larvæ to the frost and destroys many of them.

Ashcroft's Swedish Turnip. (No. 6).—Robert Downs, of New-Haven Co., Conn., appends to a business letter the following: "My turnips, the seed of which you sent me, grew beyond all expectation. The Ashcroft's Swedish were much the largest; one of them weighed 16½ lbs. I also have six weighing 12 lbs. each, and which more than fill a bushel basket. They are good turnips for eating, are very smooth and clear. From the seeds you sent I raised 43 bushels of good turnips. [In all such cases it would be useful to others, to state the kind and location of the soil and its previous treatment; the manure used; the time and mode of putting in the seed, etc.—ED.]

$360 for $1.—H. M. H., of Fairfield Co., Conn., adds to a business letter: "Do you know, my dear Editor, how much the *Agriculturist* does for *me*? Last year I dismissed a man who has been an expense of $30 a month ($360 a year) to me. The fact is, with the assistance your columns have given me, I have been able to attend to my own gardening affairs, to the advantage of my health, and I have the past year had a better yield and *more comfort*, than ever before."

Fort Edward Institute.—We take especial pleasure in directing attention to the circular of this institution in our advertising columns. Mr. King, the principal, is an old friend and classmate, and we know him to be not only an accomplished scholar, but a faithful, energetic, and experienced instructor. The school under his care stands foremost among the educational institutions of the Empire State. A circular giving full particulars can be readily obtained by any one interested.

Domestic Wine.—Dr. Underhill, the well-known grape-grower, recently presented us with specimens of three kinds of wine, which he is preparing especially for

sacramental and medicinal use. One is called "Still Isabella," a tart wine. A second is "Still Catawba," a less tart kind. The third, called "Isabella-Catawba," is made from equal parts of Isabella and Catawba grapes. This last is a new idea of the Doctor's, we believe, and to our unpracticed taste it is the best of the three. Perhaps the sugar added adapts it for our palate. We are not a competent "committee on wine," but our German associate, who was brought up in a wine-region of Germany, says these wines are "wery goot," which settles the question. As not one gallon in a thousand of the so called "imported wines" is grape juice, it is desirable to be able to get something that is reliable from home sources.

Short-Horn Stock Sale.—It will be well for those interested in good stock to refer to the announcement of Samuel T. Taber in the advertising columns. His fine herd will all be sold at auction May 10th.

Winter Management of Bees.—Jno. Sample. Works on bee-keeping by Quinby, Langstroth, and others, will give you full particulars. You will find many suggestions in our past volumes, which we can not repeat here.

Shall I plant an Orchard.—E. L. Smith, Iowa. Fruit-growing, properly conducted, *is* profitable, and the field almost unlimited. In your section apples will be a paying staple for very many years.

Honey Locust Seed.—In answer to several asking where to procure seed, we must refer them to our advertising columns

Sweet Potatoes.—E. Montague, Belchertown, Mass. They can be raised with proper care in Massachusetts. Directions for their culture in Vol. 17, page 150, and Vol. 15, page 164.

Silver Medal for Agriculturist Seeds.—D. D. C. Morris, Bergen Point, N. J., brought to our office a few days since, a silver medal awarded him at the fair of the American Institute, for the best green corn exhibited. The seed, "Stowell's Evergreen," was received by Mr. M. from this office, in the regular distribution.

Leather Shavings and Refuse.—J. R. P. These will serve a very good purpose as a mulch or manure around trees. Their value will be increased by throwing them into the barn yard or compost heap, where they may become saturated with liquid manure.

Coal Ashes as Manure.—R. Cutter, Newburyport, Mass. Coal ashes are somewhat valuable as manure, but not greatly so. They act like wood ashes and are also useful to some extent to lighten heavy clay soils; they are recommended to be applied about the roots of trees and shrubs as a preventive of worms and grubs.

Potato Planter Wanted.—F. A., Queens Co., N. Y., inquires if any of our subscribers knows of a really good potato planter—one which has been thoroughly tested and can be relied on to do his work well.

Tobacco Culture.—S. Armstrong, Col. Co., Wis. Full directions may be found in March *Agriculturist*, Vol. 16, p. 54.

Salsafy.—D. Johnson, Westmoreland Co., Pa. Cultivate it as you would parsneps. In the Fall take up what is wanted for use, the remainder will improve by being left in the ground until Spring.

Killing Briers.—S. O. Smalley. These are sharp fellows, and hardly know when they are killed. A *succession* of hoed crops will, if properly cultivated, finally finish them.

Ventilating Ice Houses.—R. W. Brent, Muscatine Co., Iowa. Ice houses should have ventilating apertures at the top to allow the vapors to escape, as moist air is a conductor of heat.

Cheap Sewing Machines.—A. H., Williamstown, Mass. After an examination of several machines sold at a low price, from $5 to $25, we have been unable to find one we could safely recommend.

How to get up a Farmer's Club.—B. R. Palmer, Clinton Co., Iowa, will find in Dec. *Agriculturist*, Vol. 16, page 279, full directions for organizing and conducting such an institution.

Cure for Mange in Hogs.—A. C., Sandy Spring, Md., sends the following recipe. Take hog's lard 2 lbs., flour of sulphur ½ lb, gunpowder ½ lb., grind them well together, and rub the mangy spots thoroughly with the mixture. He says one application cures the worst cases.

Driving away Ants.—Thomas R. Pomp, Northampton, Pa., says, he expelled ants, both black and red, from closets badly infested by them, by putting in shelves of black walnut, instead of pine. He says, in one day after the change, not an ant was to be found.

New Use for Guano.—A subscriber writing from Portsmouth, Va. (?) says, he has effectually destroyed the mounds of black ants by the application of two or three quarts of guano to *a hill*, mixing it in with a spade. After the first rain, most of the ants *came up*, and after the second rain, they all *put forth*.

Killing Two Birds with One Stone.

Many persons will be sending in for their seeds this month, (see last page.) Are there not many who can at the same time send along a *new* subscriber? For any favors of this kind we shall be duly grateful, and reciprocate as best we can. New subscribers will of course be entitled to their quota of seeds; *and further:* Any one now forwarding a new name may also *double* the amount of seeds to be sent to himself if he desires.

PREMIUMS!

We desire to extend the circulation of the *Agriculturist* into tens of thousands of families where it is still unknown. To accomplish this, we offer to those who will assist in the work, the following premiums, which are certainly liberal, if the cost of the paper, and the low price at which it is furnished be taken into account. [A few of the less important premiums, though still given when desired, are omitted here. They can be found in the January number.]

Premium III.—Any person sending in a club o 10 subscribers at $8, may order a free copy of either Vol. XVI or Vol. XVII, which will be sent in numbers.

Premium V.—Any person sending 25 subscribers and $20, will be entitled to *both* Volumes XVI and XVII, sent in numbers post-paid. (N. B.—If $21 be sent, the two Volumes will be bound neatly in one cover, and forwarded post-paid.)

Premium VI.—Any person sending in $24 for 30 subscribers, one-third or more of them *new* ones, will be entitled to a *silver* cased Microscope, with the celebrated "Coddington lens"—the same as fig. 4. in July No., page 219. Price $4. (It will be safely packed and sent by mail, post-paid.)

Premium VII.—Any person sending $32 for 40 subscribers, (one-half *new* names,) will be entitled to the large *unabridged* Webster's Dictionary, containing 1,376 3-column pages—the best and most complete work of the kind in the world. Price $6. It weighs 7 lbs., and can be sent by express or by mail ($1.12) at the expense of the recipient, after leaving the city.

Premium IX.—Any person or company of persons sending in 144 NEW subscribers at the lowest club price (80 cents each) or *one hundred* NEW subscribers at $1 00 each, will be presented with one of Wheeler & Wilson's best $50 SEWING MACHINES, new from the manufactory. These $50 machines are just as good for all working purposes as those recently sold at $100. No better working machines are made. The names can be easily gathered in single towns or in two or three adjoining ones (they need not all be at the same Post office). Two or more ladies may unite their efforts and secure a Sewing Machine as common property. As fast as these machines are secured by the requisite number of subscribers, they are selected at the manufactory by the Publisher, and securely packed and forwarded by any route or conveyance desired. There are no charges of any kind, except for transportation after leaving the city. Full instructions for setting up and using go with each machine.

Premium X.—The Lady or company of Ladies sending the largest list of names above 144, before May 1st, will be presented with a higher priced machine, that is, one put up in an extra case.

Remarks.—It will be noticed that any person trying for one of the higher premiums, and failing to get names enough, can still take one of the lower ones, according to the number of names obtained.

Every person collecting names for premiums, can send them in with the money as fast as received; but if designed for premiums, a double list of the names should be sent, one of them marked at the top, "For premiums," and with the name of the sender. These duplicate lists will be kept on file by themselves to be referred to in making up the premium when any person has completed sending in names for Volume XVIII.

We do not set any time for the completion of the lists it being understood that these premiums are only for subscriptions for volume XVIII (1859), whenever received. The premiums will be paid as soon as the names are in.

Seeds for Free Distribution in 1859.

Each person whose subscription to the American Agriculturist *is paid beyond February,* 1859, *will be entitled to select* **three** *parcels of seeds from the general list given below. (If only flower seeds are chosen,* **5** *parcels may be selected by each person—or* **3** *of flowers, and one other kind.)*

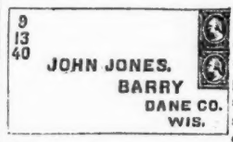
A. It is of absolute importance that the following directions be *strictly* followed, even to the minutest particulars. We have 73 distinct varieties of seeds, to be distributed among 50,000 or more persons scattered all over the country, which, at the best, will involve immense labor; and some mistakes must unavoidably occur, unless each subscriber take special pains to facilitate the work.

B. The seeds can be called for at the office, or be sent by express, or in ready prepared envelopes to be furnished by the subscriber, as described below.

C. Subscribers at different points can estimate whether they can receive their seeds cheapest by Mail to separate individuals, or in a package by Express.

D. If to go by Express, no envelopes will be needed. In that case, simply send us a written list of the names, marking against each name the kinds of seed desired, *using the numbers in the Catalogue.* Keep a duplicate of the list sent, and give particular directions, on the list, how the packages are to be forwarded, and to whom directed.

E. If to go by *mail*, the applicant will (of course) furnish prepaid envelopes, of ordinary size, which should be prepared as in the engraving here given—that is: Put the figures corresponding to the Catalogue plainly on the upper left hand of the envelope, and put all the postage stamps upon the right side of the envelope—one above the other when two or more are needed, as shown in this pattern. This will prevent the seeds being crushed in the stamping process, in the Post-Office. One ordinary envelope will generally hold the amount of seed-packages carried by two or three stamps. ☞ *The amount of stamps can be calculated from the Catalogue. Single* 1*-cent stamps on letters are of no value, unless there be even threes of them, as letter postage is rated by the half ounce.*



F. Let letters referring to seeds be as brief as possible, and yet plain. All such communications are referred directly to the clerk superintending that department. It is especially desirable that whatever relates to seeds should be on a *separate* slip of paper. (We shall probably distribute over *two hundred thousand packages*, and a minute's time saved on each of these would amount to 333 working days of 10 hours each—more than a whole year!)

G. Canada, California and Oregon subscribers will need to substitute 10-cent stamps in all cases where 3-cent stamps are named in the catalogue. When several send together from Canada, it will usually be cheaper to receive the seeds by Express. (Postage need not necessarily be prepaid here, on Canada letters.)

H. Always put the stamps upon the envelopes, and not drop them loosely into the enclosing letter.

I. It is always better to send envelopes of the ordinary size, and made after what is called the "Government pattern"—that is, those in which the back comes under the piece lapping over; these seal up more firmly. This point is not essential, however.

J. Usually, the lighter the envelope the better, the more seeds may go under the same stamps.

K. Send only the number of stamps required for postage on the seed. We have no seeds of any kind to *sell*.

L. Those forwarding *unpaid* envelopes will of course not be disappointed if they do not return. We offer seeds *free*, but cannot, in addition, afford to pay postage also.

M. All seeds sent by mail are put up at our country residence, and each package is there mailed *direct*, to avoid its being overhauled at the Distributing Offices.

N. ☞ We shall take time to mail all the seeds carefully and regularly. This will occupy the entire months of February and March. Those going to subscribers on the Pacific Coast, and in Southern States where the seasons are earlier, will be mailed first, and with dispatch. To others they will go as fast as the putting up and mailing can be accomplished—but to all in ample season for Spring planting and sowing.

LIST OF SEEDS.

Field Seeds.

1—White Sugar Beet—Single or double packages, as may be desired, requiring one or two 3-cent postage stamps.

2—King Philip Corn—Single, double, or triple packages, as may be desired, requiring one, two, or three 3-cent stamps.

3—Stowell's Sweet Corn—Same packages as No. **1.**

4—White Poland Oats—Same packages as No. **2.**

5—Chinese Sugar Cane—Any subscriber may select any amount, from half an ounce up to a full pound of this, by providing for the transportation by mail, or express, or otherwise. If to go by mail, a 3-cent stamp must be sent for each half ounce. No prepared envelopes will be needed if the address be plainly given.

6—Ashcroft's Swedish Turnip—Half of 3-cent stamp.
7—River's Swedish Stubble Turnip— do. do.
68—Purple-top Scotch, or Bullock Turnip— do.
69—Green-top Scotch, or Bullock Turnip— do.
70—Waite's London purple-top Swede Turnip— do.
98—Hungarian Grass—One 3-cent stamp.
94—Crystal Flint or Hominy Corn—One 3-cent stamp.

Vegetable or Garden Seeds.

8—Daniel O'Rourke Pea—Packages same as No. 1.
9—Champion of England Pea—One 3-cent stamp.
10—British Queen Pea— do. do.
11—Hair's Dwarf Mammoth Pea— do. do.
59—King of the Marrows Pea— do. do.
12—Green Kohl Rabi—One-third of a 3-cent stamp.
13—Enfield Market Cabbage— do. do.
14—Alma Cauliflower— do. do.
15—Mammoth Cabbage Lettuce— do. do.
21—Winter Cherry— do. do.
17—Red Strap-Leaf Turnip—One-half of a 3-cent stamp.
19—Round Spinach— do. do.
20—Salsafy— do. do.
22—Boston Marrow Squash— do. do.
55—White Globe Onion— do. do.
72—Imported Brussels Sprouts— do. do.
73—Egg Plants, (mixed)— do. do.
74—Solid White Celery— do. do.
75—Green-Curled Endive— do. do.
76—Musk Melon— do. do.
77—Water Melon— do. do.
92—Okra— do. do.
16—Long Orange Carrot— do. do.
71—Long White French Turnip—One 3-cent stamp.

Flower and Ornamental Seeds.

Of these any subscriber may choose three parcels, with one of those above; or five parcels, with none of the above. The Flower and Ornamental Seeds are put up in small packages, the amount in each depending upon the variety of the seeds, their size, the number required for a common flower-bed, etc.

39—Marvel of Peru—One-third of a 3 cent stamp.
45—Sweet Peas— do. do.
46—Mixed Lupins— do. do.
89—Cotton Plant (2 kinds)—One 3-cent stamp.
90—Norway Spruce Seed—One-half of a 3-cent stamp.
91—Arbor Vitæ Seed— do. do.

On an average, about five of the following 32 varieties will go under a 3-cent postage stamp.

23—Mignonette.
25—Mixed Nasturtiums.
27—Extra Cockscomb.
28—Dwf. Rocket Larkspur.
29—Double Balsams, mix'd.
30—Tassel Flower.
31—Chinese Pink.
32—Portulacas, mixed.
33—Cypress Vine.
34—China Asters, mixed.
35—German Asters, mixed.
37—Zinnia Elegans.
38—Sweet William.
40—Escholtzia Californica.
41—Elegant Clarkia.
42—Foxglove.
47—Morning Glory, mixed.
48—Flos Adonis.
49—Candy Tuft.
50—Schizanthus.
51—Phlox Drummondii.
78—Ageratum Mexicanum.
79—Germ. 10-weeks Stock.
80—Yellow Hawkweed.
81—Canary Bird Flower.
82—Thunbergia.
83—Snap-Dragon.
84—African Marigold.
85—Gaillardia, mixed.
86—Euphorbia, mixed.
87—Coreopsis.
88—Globe Amaranth.

Market Review, Weather Notes, &c.

AMERICAN AGRICULTURIST OFFICE,
NEW YORK, Monday Evening, Feb. 21, 1859

The exact condition, or prospects rather, of the Breadstuff Market is difficult to report. With an abundance of money, with a war-cloud overhanging the European horizon, with the cessation of arrivals from the interior by reason of the weather, and with the aid of reports of an unprecedented deficiency of grain at the West, the speculators and holders of breadstuffs in this city have been able to secure a considerable advance of prices since our last report. A small part of this advance is probably legitimate and will continue; but the increasing value of money and demand for it, the opening of navigation, the more probable peaceful termination of affairs in Europe, and the truth in regard to the actual deficiency of last year's crop, will *probably* prevent any material advance, if it does not remove some of that already attained. The sales for consumption have not been large. The aggregate of sales reported below of course embraces a large number of transactions, which have been merely the sales from one speculator to another. As these are made openly on the Exchange, it is impossible to separate them from sales for consumption.....New Corn is plenty and declining.....Barley in demand and dearer.....Rye and Oats, no change ..... Cotton, transactions moderate, market closing more firmly.....Provisions in good request, but prices irregular. . . A fair inquiry for Groceries, Tobacco, and Wool. Hay, Hemp, Hops, and Seed, quiet.

RECEIPTS.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley.*	*Oats.*
29 hus. days *this* mon.	110,750	9,100	121,350	——	1,760	86,359
24 hus. days *last* mon.	112 923	6,688	118,318	——	2,496	8,672

SALES.	*Flour.*	*Wheat.*	*Corn.*	*Rye.*	*Barley*
29 business days *this* month,	388,918	423.670	511,450	10,158	199 110
24 business days *last* mon,	239,200	338,570	413,550	15,650	46,500

EXPORTS OF BREADSTUFFS FROM N. Y., FROM JAN. 1ST, TO FEB. 14.

	1858.	1859.
Wheat Flour, bbls.	297,698	53,876
Rye Flour, bbls.	821	1,048
Corn Meal, bbls.	8,632	13,477
Wheat, bush.	255,208	16,749
Corn, bush.	252,164	12,973

CURRENT WHOLESALE PRICES.

	Jan. 21.		Feb. 21.	
FLOUR—Superf to Extra State	$4 80	@ 5 65	$5 35	@ 6 10
Common to Fancy Western..	4 85	@ 5 50	5 40	@ 5 75
Extra Western..	5 50	@ 8 50	6 00	@ 8 75
Fancy to Extra Genesee..	5 85	@ 7 75	6 25	@ 8 00
Mixed to Extra Southern..	5 35	@ 8 75	5 90	@ 8 75
RYE FLOUR—Fine and Super.	3 40	@ 4 10	3 70	@ 4 30
CORN MEAL	3 50	@ 4 10	3 70	@ 4 25
WHEAT—Canada White	1 30	@ 1 50	1 37½	@ 1 60
Western White	1 27½	@ 1 65	1 37½	@ 1 75
Southern White	1 30	@ 1 65	1 37½	@ 1 90
All kinds of Red	80	@ 1 37½	90	@ 1 45
CORN—Yellow		@ 87	79	@ 85
White		@ 88	80	@ 86
Mixed	87	@ 88½	84	@ 86
OATS—Western	61	@ 63	61	@ 64
State	56	@ 60	54	@ 58
Southern	48	@ 52	48	@ 53
RYE	86	@ 88	82	@ 86
BARLEY	70	@ 92½	75	@ 95
White Beans	1 00	@ 1 25	1 20	@ 1 35
HAY, in bales, per 100 lbs	75	@ 1 00	65	@ 85
COTTON—Middlings, per lb	12	@ 12⅜	11¾	@ 12⅛
RICE, per 100 lbs	2 75	@ 4 00	3 25	@ 4 25
HOPS, crop of 1858 per lb	10	@ 18		
PORK—Mess, per bbl	17 50	@18 00	17 37½	@18 12½
Prime, per bbl	13 50	@	13 25	@13 37½
BEEF—Repacked Mess	8 75	@10 50	9 00	@11 00
Country mess	7 75	@ 9 00	8 00	@ 9 25
HOGS, Dressed corn, per 10	7¾	@ 7¾	8½	@ 9¼
Lard, in bbls. per lb	11¾	@ 11⅞	11¾	@ 12⅛
BUTTER—Western, per lb	12	@ 20	11	@ 19
State, per lb	15	@ 25	16	@ 27
CHEESE, per lb	8	@ 9¾	9	@ 11½
EGGS—Fresh, per dozen	20	@ 22	20	@ 21
FEATHERS, Live Geese per lb.	44	@ 50	44	@ 48
SEED—Clover, per lb	10	@ 10½	10¾	@ 11¾
Timothy, per bushel	2 12½	@ 2 62½	2 00	@ 2 75
SUGAR, Brown, per lb	5¾	@ 8¾	6½	@ 8¾
MOLASSES, New-Orleans, prgl	40	@ 42	39	@ 40
COFFEE, Rio, per lb	9¾	@ 12	9¾	@ 12¾
TOBACCO—Kentucky, &c. pr lb	6	@ 14	5¾	@ 13
Seed Leaf, per lb	6	@ 25	6	@ 25
WOOL-Domestic fleece, per lb.	36	@ 56	37½	@ 62½
Domestic, pulled, per lb	30	@ 45	32	@ 50
HEMP—Undr'd Amer'n pr ton	115	@135	115	@135
Dressed American, per ton	170	@190	170	@190
TALLOW, per lb	10½	@		@ 11
OIL CAKE, per ton	32 50	@36 50	34 00	@37 00
POTATOES—Peach Blow, prbrl	1 62	@ 2 00	1 62	@ 2 00
Mercers, per bbl.	1 25	@ 1 87	1 50	@ 1 87
TURNIPS—Rutabagas, per bbl.	87	@ 1 12	87	@ 1 00
ONIONS, per bbl.	2 50	@ 4 00	3 00	@ 4 00
SQUASHES, Marrow, per bbl.	2 25	@ 2 50	1 50	@ 2 00
CRANBERRIES, per bbl.	10 00	@16 00	8 00	@16 00
APPLES—Prime, Per bbl	3 50	@ 4 00	3 50	@ 5 00
Dried, per lb	9	@ 9¾	9	@ 10
POULTRY—Fowls, per lb	8	@ 9	10	@ 12
Ducks, per lb	11	@ 14	16	@ 18
Turkeys, per lb	9	@ 12	13	@ 15
Geese, per lb	7	@ 10	8	@ 10
Venison—Carcass, per lb	6	@ 7	6	@ 8

N. Y. Live Stock Markets.—THE CATTLE MARKETS have been scantily supplied the past month—only 12,251 beeves received for 4 weeks ending Feb. 16. Prices have advanced about 1½ c. ℔ lb. At the last market day (Feb. 16) with a receipt of 3,014 head for the week, prices ranged at 13c. @ 14c. for choice premium animals; 10¼ @ 11¼c. for first quality; 9c. @ 10c. on medium, and 7½ @ 8¼ for poorer grades, with an average of 9¼c. for the entire sales.

SHEEP AND LAMBS.—Receipts of live sheep have also been light, footing but 22,794 for the past four weeks. Free supplies of dressed carcasses by railroad in part make up for the deficiency. Prices have advanced materially, being now 6 @ 6¼c. ℔ lb. live weight for good sheep, and 7c. for extra fat ones.

HOGS.—Receipts for the four weeks just ended amount to 26,834, or 17,903 less than the previous month. Recent arrivals are quite light, and high prices obtain. Good heavy corn hogs are worth 6¼c. @ 7c., and still-fed 6¼c. @ 6¾c. ℔ lb. gross or live weight.

The Weather since our last record has been variable, but generally mild for this latitude. OUR DAILY NOTES show, Jan. 22, clear A. M., cloudy P. M.—23, clear and cold—24, clear and cold (16°)—25, milder—26, warm—27, cloudy, rainy night—28, rain and fog—29, cloudy, rain at night—30, clear and fine—31, pleasant—Feb. 1, clear—2, cloudy, rain in night—3, cloudy, light rain—4, clear and cold—5, clear and fine—6, cloudy A. M., snow P. M.—7, clear, ten inches snow—8, cloudy, fine sleighing—9, cloudy and drizzling—10, clear and freezing—11, cloudy, slight snow in night—12, cloudy and snow squalls—13, clear and cold—14, clear and mild—15, cloudy A. M., rain, P. M.—16, rain A. M., clear and warm, P. M.—17, clear and warm A. M., cloudy P. M.—18, rain—19, remarkable fog A. M., cleared suddenly, and cloudy P. M.—20, foggy and rainy—21, clear and cooler—22, cool, light clouds.

☞ **The circulation of the Agriculturist to regular subscribers, is much larger than that of any other Agricultural or Horticultural Journal in the world.**

Advertisements.

Advertisements to be sure of insertion must be received at latest by the 15th of the preceding month.

TERMS—(invariably cash before insertion):

FOR THE ENGLISH EDITION ONLY.

Twenty-five cents per line of *space* for each insertion. About 9 words make a line, if undisplayed.
One whole column (143 lines) or more, $30 per column.
☞ Business Notices *Fifty* cents per line.

FOR THE GERMAN EDITION ONLY.

Ten cents per line of *space* for each insertion.
One whole column, (130 lines), or more, $11 per column.
☞ Business Notices *twenty* cents per line.

FOR BOTH EDITIONS—ENGLISH AND GERMAN.

Thirty-one cents per line; $38 per column.
☞ Business Notices *Sixty-five* cents per line.

WRECKS AND RESCUES—Illustrated. Just published by the Am. Female Guardian Soc., and sent by mail, post-paid, on receipt of price, 75c, gilt $1, at the office of the *Advocate and Guardian*, 29 E. 29th-st., New-York.
☞ The A. and G. is an interesting family paper, 16 pages, semi-monthly, (384 pages a year,) at $1 single copy; 10 copies, to one address, $5 a year.
☞ All the profits are devoted to the *Home for the Friendless*.

Landscape Gardening,
BY
A. J. DOWNING and H. W. SARGENT.

This elegant Work on PRACTICAL LANDSCAPE GARDENING comprises A. J. DOWNING'S great Work, and a new and valuable Treatise by
HENRY WINTHROP SARGENT,
giving the progress of Rural Art in the United States to the present time; descriptions of AMERICAN PLACES,
PRIVATE RESIDENCES,
CENTRAL PARK, N. Y., LLEWELLYN PARK, N. J.,
with a full account of the newer
DECIDUOUS & EVERGREEN TREES AND SHRUBS.
Presenting also, in a tabular view, the experience of cultivators in different parts of the Union, with the hardy and half-hardy Evergreens.
The Illustrations consist of
SEVEN SUPERB STEEL PLATE ENGRAVINGS,
besides numerous engravings, on wood and stone, of the best
AMERICAN RESIDENCES AND PARKS,
with portraits of many new or remarkable Trees and Shrubs.
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OFFER AT THEIR

NURSERIES AND GREENHOUSES.

AT

FLUSHING near NEW-YORK.

A LARGE AND WELL GROWN STOCK OF THE

TREES AND PLANTS

more or less of which every one needs who has the smallest piece of ground for cultivation. Planters of Orchards find our trees succeeding well, where they have given the requisite culture, and multitudes who are unable to plant so largely are annually enjoying the fruit, flower, and shade which they have procured from us.

We invite the attention of buyers to our collection of standard and dwarf FRUIT TREES, Grape Vines and all the different smaller fruits, berries, &c.

To those who are adorning their places whether large or small, we shall be glad to show our collection of Ornamental Trees and Plants which is unsurpassed in the country. Our Avenue Trees are large and vigorous. Our Lawn Trees and Shrubs are of the finest varieties, and we know will give satisfaction to the purchaser.

Of hardy EVERGREENS, we have a large and well grown stock and to these we invite special attention. Those who are forming or increasing their collection of Green House Plants will, we are confident, find here a stock unsurpassed in variety and thriftiness.

The Rose, so necessary to every garden, we grow on its *own* root, our experience having taught us that budded roses will disappoint those who cultivate them, some varieties we can furnish at very low rates. We cannot name here all the choice varieties of our FRUITS, nor give in detail the ORNAMENTAL list, but must refer purchasers to our general priced catalogues, which will be supplied to all applicants.

Our List of APPLES contains the best Summer, Autumn and Winter varieties, both for market and for family use.

PEARS, both *Standard* and *Dwarf* for the different seasons

PEACHES, a large stock of the best sorts.

PLUMS, CHERRIES, APRICOTS, NECTARINES, } Both Standards and Dwarfs

OUR GRAPE VINES for culture under glass are well known to be of strong, vigorous growth. Our collection of NATIVE GRAPES embraces the new and old standard sorts, and of some we can offer a large stock at a low rate.

NEW-ROCHELLE and other BLACKBERRIES.

CHERRY, VERSAILLES and other CURRANTS.

RASPBERRIES, ANTWERP, FASTOLFF, and others.

LINNÆUS RHUBARB, &c, &c.

A choice lot of strong English PEAR STOCKS, transplanted.

Among our

LAWN AND AVENUE TREES are

MAPLE, Norway, Sugar, Sycamore, Silver-leaf. These are all very valuable either for stately growth or beautiful foliage.

The TULIP TREE, in form unsurpassed.

The OAKS, English and American.

PAULOWNIA, with its monster leaves and beautiful flowers.

LINDENS, European and American.

The ELM of different sorts.

The MAGNOLIA with its superb flowers and handsome form.

DECIDUOUS CYPRESS, of beautiful foliage.

ORIENTAL PLANE, a noble Avenue tree.

The ASH, of both the erect, and weeping varieties. We can not here name the many other kinds indispensable to a good collection which will be found in our Catalogue and will be shown of fine quality to Visitors to our grounds.

Among our valuable DECIDUOUS SHRUBS are

The AZALEAS of the Ghent and other sorts which, properly planted, form a gorgeous mass of bloom.

DEUTZIA in its varieties,

WEIGELIA do do

STUARTIA, a most desirable late blooming American plant

CHINESE PLUM, a double flowering and beautiful new variety

PYRUS JAPONICA, a brilliant bloomer.

SPIRÆAS, of the *best* new sorts.

ANDROMEDA ARBOREA, a very rare, fine American plant

We devote special attention to the culture of EVERGREENS, and have a very fine stock of well formed and well-rooted plants of many sizes, including

NORWAY SPRUCE, the most desirable for general planting.

WHITE SPRUCE.

HEMLOCK SPRUCE.

EUROPEAN SILVER FIR.

AUSTRIAN PINE.

WHITE PINE.

EXCELSA PINE, quite the best of the Pine tribe.

IRISH JUNIPER, pyramidal and striking in appearance.

SWEEDISH JUNIPER.

SIBERIAN ARBOR VITÆ, the best of this genus.

AMERICAN do do. &c., &c., &c.

Of the EVERGREEN SHRUBS, we have only space to mention:

HARDY RHODODENDRONS, both seedling and grafted, delightful to the eye, both in Summer and in Winter.

Among our VINES are:

GLYCINE SINENSIS, and its varieties.

BIGNONIA GRANDIFLORA.

CLEMATIS of the fine new sorts.

HONEYSUCKLES of new varieties.

IVY &c., &c., &c,

Our GREEN-HOUSE PLANTS filling eight Houses, are enumerated in Catalogue No. 2, and are of the finest and rarest sorts, and are healthy and vigorous.

All the above named Trees and Plants with the rest of our collection we offer at prices, which we are sure will compare favorably with those of any grower in the country. We seek by fairness and liberality, and by careful execution and shipment of orders to preserve for our establishment the reputation which it has for many years possessed.

All Trees, Plants, etc., ordered of us will be carefully packed at a charge barely covering cost, and they will be delivered at Fulton Market Wharf, New-York City, *free of freight charges.*

Catalogues will be forwarded by mail *without charge*, and can also be obtained at No. 179 Broadway, N. Y.

We would remind gentlemen, who are intending to plant, that they can examine our stock with but little loss of time, as we are but fifty minutes from Fulton Market wharf, New-York, and that they will then be more certain of the size and quality of the trees they purchase, than if they commit their order to any stranger, who may call upon them. Orders left to the selection of the Proprietors will be attended to with the utmost care.

The Hooker Strawberry,

THE BEST YET INTRODUCED.

The attention of amateurs and growers of fruit for market is again called to this Strawberry. All that its friends have hitherto claimed for it has been more than fulfilled, and testimonials without end could be produced to attest its superiority over any other sort.

The following, making a list of advantages, all of which no other Strawberry can claim, constitute its chief points of excellence: and planters are confidently asked to verify them

1st—The plant is very vigorous and perfectly hardy.

2d—It is as productive as any other variety. ("Wilson's Albany" not excepted.) The fruit is borne in large clusters—more than 20 perfect berries being frequently gathered from a single stem.

3d—The flowers are all perfect and uniformly productive of fruit, consequently there are no barren plants.

4th—The fruit is absolutely unequalled in flavor, in color a rich dark crimson or mahogany extending into the heart of the berry, which is firm and solid to the center: OF THE LARGEST SIZE yet tender and delicate.

5th—It takes the 1st premiums wherever exhibited. See reports of various horticultural societies.

Plants in any quantity desired may be obtained pure and strong from the grounds where it originated. Packages are put up to go safely to any part of the United States by mail or express. Order for Spring planting, if only a few for trial, of

H. E. HOOKER & CO.,
Commercial Nurseries,
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Price $2 per 100.
" 15 per 1000.

FIELD AND GARDEN SEEDS from reliable growers.
Agricultural and Horticultural Implements, of the most approved patterns.

GRIFFING, BROTHER & CO.,
60 Cortland-st., New-York City.

Strawberry, Blackberry, and Raspberry Plants.

The subscribers offer for sale limited quantities of the following plants:

WILSON'S ALBANY STRAWBERRY,
$2 per 100; $7 for 500; $10 per 1000.

MOYAMENSING, (very late, large, sweet,) $1 per 100.

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PEABODY'S NEW HAUTBOY,
50 cents per dozen; $3 per 50; $5 per 100.

NEW-ROCHELLE BLACKBERRY.
$2 per dozen; $6 per 50; $10 per 100.

THE ALLEN RASPBERRY,
$1 per dozen; $6 per 100; $50 per 1000.

We invite attention to this new Raspberry, by persons living in situations where the Hudson River Antwerp does not flourish, and by all who wish for a variety of superior flavor, and which requires no staking in Summer nor covering in Winter. These plants have all been obtained from their original sources and are warranted genuine, and unmixed. Orders enclosing the money will be promptly forwarded as soon as the season permits removal.

H. & J. CARPENTER.

Po'keepsie, N. Y., March 1, 1859.

The Allen Raspberry.

I can supply, after 1st April next, a quantity of these highly valuable, well approved, thoroughly hardy plants, which I have had in successful bearing for the past ten years Price $1 per dozen; $6 per hundred; $50 per thousand Orders, with money enclosed, addressed to the undersigned, Black Rock, N Y., will meet immediate attention. They can be sent by express, or otherwise conveyance to all parts of the country.

March 1st, 1859. LEWIS F. ALLEN.

LAWTON BLACKBERRY.
For the original variety, for Circulars free, address
WM LAWTON, New Rochelle, N. Y.

THE SYRACUSE NURSERIES

OFFER FOR SALE FOR THE SPRING OF 1859,

OF FRUIT TREES,

APPLES—3 years old; a very general assortment.
4 years old; a limited assortment of early and late varieties.
2 years old Dwarfs, very fine.

PEARS—1 and 2 years old; Dwarf and Standard, so extensive in variety as to enable us to fill almost any order.

CHERRY—1 and 2 years old; Dwarf and Standard, beautiful Trees.

PEACH, APRICOT, PLUM and NECTARINE—Best varieties.

CURRANTS—White and Red Dutch, Victoria, and twelve newer varieties.

GOOSEBERRIES—Houghton's Seedling, a good stock, and some of the best English sorts.

BLACKBERRIES—Lawton, or New Rochelle, and Dorchester.

RASPBERRIES AND STRAWBERRIES—Assortment especially large and desirable, of all the best old and new kinds

GRAPES—An immense stock of Isabella, Catawba and Clinton, 1 and 2 years old, exceedingly strong and well rooted; also, very fine plants of the *Concord, Delaware, Hartford Prolific, Northern Muscadine*, and *Union Village*; besides a superior collection of *Foreign Grapes*, in pots.

EVERGREENS—European Silver Fir; American and Norway Spruce; American Arbor Vitæ; Balsam; Hemlock; Austrian, Corsican and Scotch Pines.

DECIDUOUS—American and European Mountain Ash; Weeping Ash; American Elms; Weeping Elms; English Weeping Elms; (very graceful) Horse Chestnuts; Catalpas; European Larch; Silver and Sugar Maples; Linden; Tulip Trees, Nursery grown and very fine; Walnut; and Weeping Willow.

SHRUBS—Altheas; Fringe Trees, Purple and White, Double Flowering Almond, Cherry and Peach; Honeysuckles; Lilacs; Snowballs; Sweet Briar; Spireas; Double Flowering Thorn, White and Rose Colored, &c.

ROSES—One of the best and largest collections in America; best plants of the Augusta at $1.

DAHLIAS, PEONIES, BORDER PLANTS, BULBOUS ROOTS, &c., in great variety.

OF MISCELLANEOUS ARTICLES.

RHUBARB—Cahoon's, Giant, Victoria and Linnæus.

ASPARAGUS—Very strong, 1 year old roots

HEDGE PLANTS—Osage Orange; Honey Locust, Privit, 1 and 2 years; Red and White Cedar.

FOR NURSERYMEN.

500,000 Apple Grafts, worked on strong roots, at		$6
50,000 Manetti Rose stocks, very fine,	"	15
30,000 Mazzard, Cherry do do do	"	4
200,000 Apple Seedlings, 1 year, do	"	4

☞ Nurserymen will find these very superior.

Our articles generally are of the finest growth, and will be sold at the lowest rates. For particular information see

Our Several Catalogues, Viz:

No. 1. A Descriptive Catalogue of all our productions.
No. 2. A Descriptive Catalogue of Fruits.
No. 3. A Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.
No. 4. A Descriptive Catalogue of Dahlias, Green House, and Bedding Plants &c.
No. 5. A Wholesale Catalogue for Nurserymen and Dealers.

Forwarded on receipt of a stamp for each.

THORP, SMITH & HANCHETT.

Syracuse January 17, 1859.

HIGHLAND NURSERIES.

COWLES & WARREN, SYRACUSE, N. Y.

Cultivate extensively all hardy varieties of Fruits. Trees grown on our *uplands* are unsurpassed in vigor. Planters and Tree Dealers supplied at satisfactory prices. Seedlings and young stock for Nurserymen CHEAP.

BRIDGEMAN'S

Horticultural Establishment,

Nos. 876 and 878 Broadway,

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ALFRED BRIDGEMAN, PRINCIPAL OF SEED DEPARTMENT,

Respectfully invites the attention of FARMERS, GARDENERS, and all those in want of Seeds to his unsurpassed collection of NEW CROP FIRST QUALITY GRASS, VEGETABLE, HERB AND FLOWER SEEDS, including all the good old varieties and several that are new and worthy of general cultivation.

Also a full assortment of HORTICULTURAL IMPLEMENTS, AGRICULTURAL AND HORTICULTURAL BOOKS. Priced Catalogues furnished on application. All orders attended to promptly, and with exactness. Goods packed securely to go any distance.

Seeds---Seeds.

Our DESCRIPTIVE PRICED CATALOGUE of VEGETABLE AND AGRICULTURAL SEEDS FOR 1859 is now ready for mailing to applicants enclosing a one cent stamp.

J. M. THORBURN & CO.,
Seed Warehouse,
15 John Street,
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N.B.—A Catalogue of Tree and Shrub Seeds will be published shortly and mailed as above, containing directions for managing Evergreen, &c. Seeds.

Garden Field and Flower Seeds.

The Subscriber has now on hand a full assortment of Garden Field, Fruit, Herb, and Flower Seeds of the growth of 1858, of the best qualities. I have added to my already numerous varieties several new kinds for sale, wholesale and retail, at low prices. Among these will be found—

Artichoke, Asparagus, Beans, Broccoli, Beet, Cucumber, Cabbage, Cauliflower, Carrot, Celery, Corn, Cress, Egg Plant, Endive, Kale, Leek, Lettuce, Melon, Mustard, Okra, Onion, Parsley, Parsnep, Peas—several new varieties, Peppers, Pumpkin, Radish, Rape, Rhubarb, Sage, Salsafy, Savory, Spinach, Squash, Marjorum, Thyme, Tomato, Turnip, &c.

Oats—heavy and choice varieties.

Potatoes—Prince Albert, Peach Blow, Early Dyckman, and all other approved kinds.

Tobacco Seed—Havanna, Connecticut Seed Leaf, Virginia, Maryland, &c.

Spring Wheat—of several varieties.

Spring Rye, Spring Barley, Grass and Clover Seeds of all kinds

Fruit Seeds—Osage Orange, &c.

A Catalogue containing a full list of seeds and prices furnished on application. R. L. ALLEN, 191 Water Street, N. Y.

Fruit and Ornamental Trees
For Spring of 1859.

ELLWANGER & BARRY, beg to inform Planters, Nurserymen and dealers in trees that they have still on hand to offer for Spring planting a large stock of the following named articles of superior quality in all respects.

FRUIT DEPARTMENT.

STANDARD PEARS on pear Stock 2 and 3 years from bud.
DWARF AND PYRAMID PEARS on quince stock, 2 & 3 yr. from bud.
DWARF AND PYRAMID APPLES on paradise and Doucin, 1, 2 and 3 years from bud.
STANDARD CHERRIES on Mazzard stocks 2 years from bud.
DWARF AND PYRAMID CHERRIES on Mahaleb stocks, 1 and 2 years from bud.
APPLE QUINCES, grafted 2 and 3 years from graft.
ENGLISH WALNUTS, Butternuts, Spanish Chestnuts, Filberts, &c.
HARDY GRAPES, including Isabella, Catawba, Clinton, Concord, Diana, Rebecca, Monteith, and other new varieties.
FOREIGN GRAPES for Vineries, all the most esteemed varieties, well ripened plants in pots, 1, 2 and 3 years old from the eye.
BLACKBERRIES, New-Rochelle or Lawton, and Dorchester.
GOOSEBERRIES, The American Seedling, and large English varieties.
STRAWBERRIES, upwards of 60 varieties, including all the best American and Foreign varieties.
CURRANTS, Red Dutch, Victoria, White Grape, Black Naples, Black English, &c., &c.
RHUBARB, Myatt's Linnæus, Victoria, Prince Albert, &c.
ASPARAGUS, Strong Roots.

STOCKS.

MAZZARD Cherry Seedlings. MAHALEB Cherry Seedlings.

ORNAMENTAL DEPARTMENT.

DECIDUOUS STANDARD LAWN TREES.
DECIDUOUS WEEPING LAWN TREES.
EVERGREEN TREES, embracing an immense stock of Norway Spruce from 6 inches to 6 feet, also rare California Evergreens, &c.
(See special Advertisement.)
FLOWERING SHRUBS, all the most desirable, a very large stock
CLIMBING SHRUBS, of all sorts.
ROSES, The largest stock in the country of all the best sorts both on the Manetti Stock and on their own roots—(See Catalogue).
HERBACEOUS PÆONIES, a superb assortment of more than 75 varieties.
DAHLIAS, over 100 of the most beautiful varieties including the latest novelties.
PHLOXES, an unrivalled assortment embracing all the classes.
DIELYTRA SPECTABILIS, the most charming hardy border plant in cultivation, over 10,000 plants.
CHRYSANTHEMUMS, both large and pompone varieties, the newest and best.
CARNATIONS AND PICOTEES, a fine collection.
DELPHINIUM HENDERSONII, Magnificum, and other beautiful sorts.

Besides all the most desirable hardy border plants grown (See Descriptive Catalogue No. 3).

GREEN-HOUSE AND BEDDING PLANS.

All the most useful and popular plants such as Fuchsias, Geraniums, Heliotropes, Verbenas, Petunias, Lantanas, Veronicas, Hydrangeas, Bouvardias, Pumbagos, &c., &c., grown extensively and supplied in quantities, or by the dozen, assorted, at low rates. (See Catalogue No. 3.)

SUMMER AND AUTUMN BLOOMING BULBS.

A superb collection of the new Gladioli, and Japan Lilies, besides Tuberoses, Tigridias, &c.

We can say without boasting that our present stock has never been surpassed in vigor, health, and beauty of growth. We invite all parties interested to examine it and satisfy themselves.

Packing for distant parts, executed in the most careful and skilful manner, and customers treated in all respects with fairness and liberality.

For full and detailed information respecting the stock, prices, terms, &c., we refer to the following catalogues which will be sent gratis, pre-paid to all who enclose one stamp for each. Viz,

No. 1.—Descriptive Catalogue of Fruits.
No. 2.—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c., &c.
No. 3.—Descriptive Catalogue of Dahlias, Green-House, and Bedding Plants, &c.
No. 4.—Wholesale Catalogue for Nurserymen, Dealers, and others who purchase in large quantities.

ELLWANGER & BARRY,
MOUNT HOPE NURSERIES,
March 1st, 1859. Rochester, N. Y.

Stephen Hoyt and Sons,
New Canaan, Ct.
3 1-2 MILES FROM NORWALK.

Offer for sale a large and choice stock of Fruit and Ornamental Trees. Comprising
30,000 Apple Trees, 3 and 4 years from the bud or graft.
20,000 Peach Trees, 1 year from bud.
And an assortment of Pears (Standard and Dwarfs), Cherries, Plums, Apricots, Quince, &c, &c.
20,000 Norway Spruce from 1 to 5 feet high.
20,000 American Arbor Vitæ, from 1 to 6 feet high.
100,000 Sugar Maple Seedlings, 1 year old.
100,000 Elm Seedlings, 1 year old.
20,000 French Quince Stocks (Well rooted and Cheap).
New Canaan, Ct., Feb. 16th, 1859.

Choice Dahlias at Wholesale.

The subscriber would invite the attention of Nurserymen, Florists and others who wish to purchase by the quantity, to his large assortment of the above in pot roots for propagation, comprising about two hundred varieties, among which are many new varieties first sent out last Spring, the roots being very compact, can be packed into a small space, and safely sent to all parts of the country. Catalogues with prices upon application.
B. K. BLISS, Springfield, Mass.

RARE SEEDS.—Boston Marrow Squash, Poland Oats, Mountain Bush Beans, Speckled Lima Beans, Rhode Island Premium Corn, and Clinton Potato Eyes. Each 12 cents per package, post-paid.
P. SUTTON, Ransom, Luzerne Co., Pa.

LINNÆAN GARDEN & NURSERIES.—Flushing, New-York.—WM. R. PRINCE & CO. will send their Catalogues of any Department of their Nurseries, including 150 select varieties of Native Grapes, *with the reduced prices*, to applicants who enclose stamps.

Choice Vegetable Seeds by Mail.

20 Varieties $1.00. 45 Varieties $2.00.

Wishing to give those who reside at a distance an opportunity to test the quality of our Vegetable Seeds, which we are confident will compare favorably with any ever offered in this country we have prepared small packets, of all the leading varieties which will be sent by mail, post-paid, to any address in the Union at the above prices.

To those who wish for larger quantities we would recommend the following collections, suitable for a large, medium or small garden, which will be carefully packed for transportation by Express to any part of the world.

No. 1—COMPLETE COLLECTION—Sufficient for a large garden for one year's supply, containing 12 quarts Peas of the very best sorts for succession and all other seeds in that proportion.....$10.00
No. 2—COMPLETE COLLECTION for a moderate sized garden, comprising 6 quarts of Peas, and most of the other varieties in proportion.....$5.00
No. 3—COMPLETE COLLECTION for a small garden.....$3.00

The quantities included in the above collections will be found detailed at length in the Catalogue, which will be sent by mail post-paid to all applicants inclosing a Postage stamp.

All orders must be accompanied with the Cash.
B. K. BLISS,
Springfield, Mass.

Evergreen and Deciduous Trees.

HENRY LITTLE & CO., of Bangor, Me., will continue to furnish any number of Evergreen and other Forest Trees, taken up with earth on the roots with great care, and sent to any part of the United States by steamers and railroads, at the following low prices, viz:

From 6 to 12 inches at 1 cent, or.....$10 00 per 1000
From 1 to 2 feet at 1½ cent, or..... 15 00 per 1000
From 2 to 3 feet at 3 cents, or..... 30 00 per 1000
From 3 to 4 feet at 4 cents, or..... 40 00 per 1000 and larger at fair prices.

Money should accompany the orders for trees and freight, for Railroad and Steamers now require pre-payment.

Catalogues sent gratuitously.

NOTICE TO FARMERS AND GARDENERS.

I offer for sale a
MAMMOTH PROLIFIC LIMA BEAN,

of mealy tenderness, and pronounced by judges the best Lima raised. It grows only six feet high, the vines being completely covered with bunches of from 15 to 20 large pods to the bunch. Also APPLE PIE MELON SEED. Each 9 cents per package mailed.

Also, LARGE CHEESE SQUASH, which in delicacy of flavor for pies, and as a substitute for the Sweet Potato cannot be excelled. 12 cents per package mailed. The three packages for 25 cents. CHARLES V RAPALYE,
Care of "Ed. Horticultural Monthly" Morrisania, N. Y.

Improved King Philip Corn.

I am now prepared to sell my improved King Philip corn for seed at One Dollar per Peck. Farmers wishing to procure this valuable variety of Corn can do so by addressing
WM. S. CARPENTER,
468 Pearl-st., N. Y.

(From the New-York Tribune.)

IMPROVED CORN.—Wm. S. Carpenter, Harrison, Westchester County, N. Y., has shown us a specimen of improved King Philip corn, superior to any we have ever seen before. It is an accidental variety the ears being of unusual length, as long as the best Dutton, the kernels being very large and deep, eight rows on the cob. It ripens perfectly in one hundred days, and produces very nearly double as much as the ordinary King Philip. EDITOR TRIBUNE.

14,349 LOCAL AGENTS WANTED

to sell Trees of the
"KING OF TOMPKINS' CO." APPLE,
which is adjudged by the N. Y. S. Agricultural Society to be the best single variety, and sells in New-York at $6 to $8 per barrel, and also all other kinds of Fruit Trees, both Standard and Dwarf, Ornamental Trees and Shrubs, Vines, &c., cultivated at
THE SENECA LAKE HIGHLAND NURSERIES,
established in 1842, by the present proprietor, E C FROST, at Havana, Schuyler Co., N. Y. Send by mail for terms and Catalogues of Trees.

A few thousand Apple, Plum and Quince Stocks yet on hand.

PURE HUBBARD SQUASH SEED FOR SALE

By the subscriber, who first introduced this excellent variety to public notice, and gave it its name. The following testimonials express but the general sentiment of all who have tested the new squash, which has just received the award of the Massachusetts Horticultural Society as the best squash exhibited during the season.

"The richest squash I have ever tasted." (Hon. Marshall P. Wilder.)...."Nothing could be better. It is a very important acquisition to the vegetable garden."—(Hon. Edward Everett.) ...."They excel in flavor and fineness of the flesh any squash we have ever tasted."—(New-England Farmer.)...."They are mealy as mashed potatoes, as sweet than sweet potatoes or boiled chestnuts, a good deal like the latter, but better than either."—(The Homestead.)

SEED—For a package with full directions for cultivation, 25c.
JAMES J. H. GREGORY, Marblehead, Mass.

Hubbard Squash.

FIFTY SEEDS of this celebrated Squash sent free by post to any address in the Union on receipt of five 3-cent stamps. Address B. K. BLISS, Springfield, Mass.

Seeds—Seeds—Seeds.

We would call the attention of Farmers and others to an entirely new and choice collection of Grain, Field, Grass, Herb, Flower and Garden Seeds, which we will warrant to be pure and fresh.

Please send for a priced Catalogue.
A. F. MAYHER & CO.,
New Agricultural Warehouse and Seed-store,
☞ Remember the new stand, No. 51 Vesey-st., N. Y., near Washington market.

Hungarian Grass Seed.

A large stock of the above just received and warranted to be the GENUINE article for sale by the agents.
A. F. MAYHER & CO.,
NEW SEED STORE, No. 51 Vesey St., New-York.

GENUINE HUNGARIAN GRASS SEED

At $2 50 per bushel. For sale by
S. DEWEY, Hockingport, (Ohio River.)
Athens Co., Ohio.

SEEDS In fine variety for hot-bed, garden, or Field use. For sale at Agricultural Depot, 100 Murray-st., N. Y. HENRY F. DIBBLEE.

American Weeds & Useful Plants

OR

AGRICULTURAL BOTANY,

By W. DARLINGTON, M. D., West Chester, Pa., with additions by GEORGE THURBER, New-York.

A History and Description of all plants injurious or important to the American Farmer and Gardener; with nearly

THREE HUNDRED ILLUSTRATIONS.

THE WEEDS

Which now infest our farms have, with few exceptions, been introduced from abroad; and being at first unnoticed, have spread from farm to farm until

IT NOW COSTS THE FARMERS OF AMERICA

MILLIONS OF DOLLARS

every year for the destruction of these Foreigners, or in the injury done to their crops.

Every Farmer should guard his grounds from the FIRST APPROACH OF HIS ENEMIES.

As a class-book for Agricultural Schools and Colleges—and a Hand-book for the Farmer—and for all public and private libraries this book is the most valuable addition yet made to our already large list of Agricultural Books.

Price $1 50.

Sent by mail, postage paid, on receipt of price.
A. O. MOORE & CO.,
Agricultural Book Publishers,
140 Fulton-st., New-York.

PROFITABLE Employment may be had by addressing (post-paid) R. SEARS 181 William-st, N. Y

The Fort Edward Institute.

After four years of successful experiment, confidently refers to its numerous and respectable patrons in demonstration of its ability to furnish wholesome and sufficient BOARD, fuel and washing included, at $2.00 per week, and to provide superior INSTRUCTION in all the branches of a commercial, classical or ornamental education at corresponding rates; while the physical and moral health of its students is sacredly and effectively guarded. Superb brick Buildings with complete departments and adaptations for both ladies and gentlemen; a strong, permanent and united Faculty all residing with the Students; the rule of pre-payments for Board; and the constant attendance of goodly numbers, given by promotive of financial economy, and serving always, under judicious management, to emphasize the motives to diligence and duty; these, under outspoken Christian auspices, have been among the efficient causes of its unparalled success. The Spring Term opens March 17th. Circulars, containing full and minute information, with references, are sent gratis, on application to the Principal, Rev. JOSEPH E. KING, A. M., Fort Edward, New York.

NOTICE OF PARTNERSHIP.—The undersigned have this day formed a limited partnership for the period of five years from the 27th day of January, 1859, under the name or firm of HENRY F. DIBBLEE, for the purpose of dealing in or manufacturing Agricultural Implements, Machines, &c. Also sales on commission. HENRY F. DIBBLEE is the general partner, and CHARLES A. GRIFFIN, who is the special partner, has contributed eight thousand five hundred dollars in cash. Signed, HENRY F. DIBBLEE.
Dated New-York, Jan. 27, 1859. CHARLES A. GRIFFIN.

The business, as heretofore, will be conducted at AGRICULTURAL DEPOT, 100 Murray-st, where an increased variety of Implements, Machines, Seeds, Fertilizers, &c., will be found.

Bees.

THE MYSTERIES OF BEE-KEEPING EXPLAINED.

Containing an Appendix, with directions for using the movable combs of L. L. Langstroth will be sent to any address, free of postage, for one dollar. Address M QUINBY,
St. Johnsville, Montgomery Co., N. Y.

A CHOICE FARM AT KINGSTON, N. Y., for sale. In a healthy locality 1¾ miles north of Kingston, Ulster Co., N. Y. on both sides of the Albany Road, and 2¾ miles from Rondout, where Steamboats leave daily, morning, and afternoon, for New-York, and a Steam Ferry connects with all the Hudson R. R. trains. It is also in close proximity to a ready market. On the west side of the Road it contains about 53 acres, a good dwelling, carriage and ice-house, barn, permanent horse-power, orchard, large garden, &c. On the east side about 36 acres, a small dwelling, barn, sheds, &c. The farm also has a wood lot of 37 acres. The scenery in this section is very fine and the Catskill Mountains immediately in view.
Apply to HENRY F. DIBBLEE, 100 Murray-st., N. Y.

ROBERT E. BABB, Real Estate and Collecting Agent, Office No 167 Broadway; residence No. 6 Jones-st., near 4th st. Houses let and rents collected, &c. All business intrusted to his care, will be *promptly* and *faithfully* executed.
REFERENCES:
A. M. Gunn, M. D., No. 132 4th-st.
Leonard W. King, Esq., No. 55 Bleecker-st,
N. D. Herder, Esq., No. 99 Murray-st.
Mathias Clark, Esq., No. 535 Greenwich-st.

ELLWANGER & BARRY'S Old established "Mount Hope Nurseries," Rochester, N. Y. Orders received at Agricultural Depot, 100 Murray-st., N. Y.
HENRY F. DIBBLEE.

10,000 SOLD.—PRACTICAL HORSE FARRIERY—Revised Edition, containing the Treatment and Cure of Diseases, the whole of RAREY'S ART, with illustrated instructions; 100 valuable recipes, &c., sent free on receipt of 50 cts. E. NASH,
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THERMOMETERS, BAROMETERS, &c., of reliable quality and various descriptions, among which are those particularly suited for Horticultural purposes, which register the coldest and warmest degree of temperature during the 24 hours, in the absence of the observer. For sale by D. EGGERT & SON, 239 Pearl st.

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FLOWER SEEDS BY MAIL

TWENTY-FIVE VARIETIES
OF
Choice Annual Flower Seeds.
WITH DIRECTIONS FOR THEIR CULTURE.
PRICE ONE DOLLAR.
SOLD BY

JAMES M. THORBURN & CO.
NO. 15 JOHN STREET,
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10	Varieties of choice Hardy Annuals		.50 cts.
50	do	do do Biennials and Perennials	$2.00
100	do	do do do	4.00
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20	do	Choice, Hardy Biennial and Perennials	1.00
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6	do	For Rockwork	75
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12	do	Finest German Zinnias	1.00
22	do	French Truffaut Asters	5.00

Assortments of Beautiful German Asters, Quilled, Perfection, &c., from 75 cts., $1 00, $1 50 to 3.00
Assortments of Beautiful German Ten Week, Giant, and Intermediate Stocks from 75 cts. to 3 00
Assortments containing 50 Varieties splendid Carnation and Picotee 5.00
All the above free by mail on receipt of a remittance in Bank Bills on any solvent Bank in the Union.

J. M. THORBURN & CO.,
15 John Street,
New-York.

☞ Please observe our other advertisements in this No.

Rare and Beautiful Flowers.

B. K. BLISS,
Seedsman and Florist—Springfield, Mass.

Would invite the attention of all who love the cultivation of Flowers to his large and splendid assortment of English, French and German Flower Seeds, received from the most trustworthy sources, and embracing all of the most desirable varieties in cultivation.

The seventh annual edition of his Descriptive Catalogues of Flower, Vegetable and Agricultural Seeds arranged on an improved plan, and containing much valuable information, both to the novice and amateur, is now ready for delivery, and will be sent post-paid to all applicants on receipt of a postage stamps.

FLOWER SEEDS BY MAIL.

For the accommodation of those who reside at a distance he has prepared the following assortments, containing only the most showy varieties, and those of easy culture, which will be sent post-paid to any address in the Union at the following prices:

ASSORTMENT No. 1—consists of twenty choice varieties of Annuals $1 00
No. 2.—consists of twenty choice varieties of Biennials and Perennials $1 00
No. 3—consists of ten extra fine varieties of Annuals and Perennials, embracing many of the new and choicest in cultivation $1 00
No. 4—consists of five very choice varieties selected from Prize Flowers of English Pansies, German Carnation and Picotee Pinks, Verbenas, Truffaut's French Asters and Double Hollyhocks $1 00

Purchasers remitting $3 00 will receive the four assortments, postage free. The above collections have been favorably known in every section of the country for the past five years, and can e confidently recommended to all who wish for a fine display of Flowers at a moderate cost.

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No. 6—contains one hundred varieties of Annuals, Biennials and Perennials, including many new and choice varieties $5 00
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No. 8—contains twenty varieties of hardy Annuals, Biennials and Perennials, for sowing in the autumn $1 00

All orders must be accompanied with the cash.—Remittances can be made in current Bills or Postage Stamps.

In addition to the above he offers a large and well selected assortment of Dahlias, Verbenas, Roses, English Carnation and Picotee Pinks, Double Hollyhocks, Petunias, Herbaceous and Bedding Plants of every description, a Catalogue of which will be published in April and sent to all applicants enclosing a postage stamp.

B. K. BLISS.

Flower Seeds by Mail.

We are now receiving our annual supplies of English, French and German Seeds direct from the most reliable seed growers in Europe, which in addition to our many favorite sorts of American growth, gives us an unusually large assortment, embracing in all nearly *one thousand* varieties, and containing every desirable novelty and standard variety—from which we have selected the following collections, which we will send by mail *free* of postage, to any part of the United States at the annexed prices:

COLLECTION No. 1—Contains 20 varieties of Annuals $1 00
COLLECTION No. 2—Contains 20 varieties of Biennials and Perennials 1 00
COLLECTION No. 3—Contains 10 extra fine varieties of Rare Annuals and Perennials 1 00
COLLECTION No. 4—Contains 5 choice varieties, from Prize Flowers, of French Asters, German Carnation and Picotee Pinks, English Pansies, Verbenas and Hollyhocks, each of which is sold at 25 cts. singly. 1 00
COLLECTION No. 5—Contains 50 varieties, (including collection No. 4), Annuals, Biennials and Perennials 2 50
COLLECTION No. 6—Contains 100 varieties 5 00

We also offer many other varieties of French and German Seeds by mail for enumeration of which see our Descriptive Retail Priced List of Flower and Vegetable Seeds, which will be sent to all applicants enclosing a one-cent stamp.

Persons ordering will please state the No. of the Collection.

N. B.—Particular attention should be given to giving the address, town, county and State in full, as it is a frequent occurrence that an essential part is wanting, and the seeds cannot be forwarded until another communication is received.

All orders will receive prompt attention. Address
ALLEN & McELWAIN, Springfield, Mass.

BY MAIL, GRAFTS, VINES AND PLANTS.

I will send carefully packed, post-paid.

Grafts of the Baker Apple at ..... 36c. per dozen
" any other varieties grown East ..... 36c. "
" Bartlett or other Pears ..... 75c. "
Concord Grape Cuttings, two buds each ..... 6c. per ½ doz
Concord Grape Vines, suitable for mailing ... $2 00 "
New-Rochelle or Lawton Blackberry Plants, do. 75c. "
Mammoth Cahoon Pie Plants, crowns ..... 75c. "
Peabody's and Wilson's Albany Strawberry plants. 75c. per dozen
Longworth's Prolific, McAvoy's Superior, and other choice varieties ..... 36c. "

Any larger quantity of not more than three pounds, sent by mail at the same rates. All of the above by the 100 or 1000 at the lowest rates, by express.

Cash or 3-cent stamps must accompany orders, which will be filled as soon as the season will admit.

Ridgefield, Conn., March 1, 1859. F. A. ROCKWELL.

BRIDGEMAN'S
Horticultural Establishment.
NOS. 876 & 878 BROADWAY,
NEW-YORK.
NURSERY AND GREEN-HOUSE DEPARTMENT.

ANDREW BRIDGEMAN, PRINCIPAL.

The Attention of Purchasers are invited to our select assortment of

FRUIT AND ORNAMENTAL TREES,
FLOWERING SHRUBS, FRUIT BUSHES, GRAPE VINES,
STRAWBERRIES, ESCULENT ROOTS, &c., &c.

For particulars see Descriptive Catalogue No. 4, which will be sent free to all applicants.

A new addition of Descriptive and Priced Catalogue No 6.

SELECT BEDDING PLANTS,
ROSES,
SUMMER AND AUTUMN BLOOMING BULBS,
AND
HERBACEOUS PLANTS

will be issued March 1st.

The stock the present season, are all good size, well grown and very select, including many rare and valuable plants of recent introduction.

The immense number propagated by us to supply the demand from all parts of our country, enables us to put our selected varieties at as low prices as is usually charged for the more ordinary kinds.

All orders will be promptly filled, carefully packed and forwarded as directed.

☞ SEND FOR CATALOGUES AT ONCE.

February 18th, 1859.

Small Fruits,
New Native Grape Vines,
Rhubarb, &c.,

Wholesale and Retail.

A large stock of the best varieties is offered at low rates, including

THE BRINCKLE'S ORANGE RASPBERRY,
unequalled in flavor and beauty, also very vigorous and productive, and considered by many as the very best, and recommended by the Am. Pom. Convention for general cultivation. Also the Vice Pres. French and Thunderer—and

LINNÆUS RHUBARB,
An English variety, particularly tender, fine flavored and productive—the most profitable for market.

REBECCA GRAPE VINES,
Extra strong, grown 7 to 10 feet high. Also, Delaware, Diana, Concord, and Hartford Prolific vines.

NEW-ROCHELLE BLACKBERRY,
Very low, also Newman's Thornless Blackberry, and Strawberries in any quantity of the most prominent varieties. Address
H. C. FREEMAN, late Freeman & Kendall,
Ravenswood Fruit Garden, Ravenswood, L. I., near New-York.

Cranberry Plants.

GENUINE PLANTS OF THE BELL VARIETY.
NEW-ROCHELLE (Lawton) BLACKBERRY.
HOP-TREE or Ptelia Trifoliata—superior to common hops for culinary purposes, also very ornamental.

Circulars relating to the above will be forwarded to applicants.

Also for sale Tree Varaish for keeping out air and water from cuts, wounds, &c., on trees. 6 bottles for $1. For sale by
F. TROWBRIDGE & CO.,
At the New-Haven Nursery, New-Haven, Ct.

CRANBERRY CULTURE.

The subscriber has issued a circular on the Cranberry and its culture, and will forward them to all who send a post-stamp to pre-pay postage. Also, has plants for sale, and will send them in a fresh state, by express, to all parts of the United States.

Address SULLIVAN BATES,
Bellingham, Norfolk County, Mass.

PEABODY'S SEEDLING STRAWBERRY.—A few thousand genuine Plants left yet, which will be closed out this Spring for cash orders at $10 per thousand.
South Salem, Ross Co., Ohio. O. HEFFRON.

THE SWEET POTATO successfully cultivated in the North. Statements from those who grew them. Also information relative to procuring plants and seed, and propagation of plants, culture, &c. sent on receipt of a stamp.
O. S. MURRAY & SON,
Twenty-miles Stand, Warren Co., Ohio.

Peach Blow Potatoes for Seed,

500 bushels New Jersey Peach Blow Potatoes for sale at $1 per bushel, in lots to suit. The above were raised by the subscriber, and selected with care for seed, and warranted the genuine Peach Blow. Orders addressed to
March 1st. 1859. C. SHERWOOD, Summit, N. J.

A NOVELTY.

THE MEXICAN COSHAW. This new mammoth vegetable belongs to the Squash family. It is unequaled for size and edible qualities and makes delicious pies. Price of Seeds 25 cents per package sent to any address post-paid.
Address VOLNEY LEONARD,
Springfield. Bradford Co., Pa.

PLOWS, HARROWS AND CULTIVATORS, of most approved patterns and for every variety of use. Garden and Horticultural Tools, a complete assortment. For sale by
R. L. ALLEN, 191 Water St.

ISABELLA AND CATAWBA GRAPE VINES, of proper age for forming Vineyards, cultivated from, and containing all the good qualities which the most improved cultivation for over eighteen years, has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase, will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M.D. New-York, or Croton Point, Westchester Co., N. Y., will receive attention.

Having ripened his whole crop of Isabella and Catawba Grapes in 1857, the coolest season and most difficult to ripen in 20 years, he is confirmed in the belief that a good crop of fruit can be obtained every year, by improved cultivation, pruning, &c., in most of the Northern, all of the Middle, Western and Southern States.

N. B.—To those who take sufficient to plant six acres as he directs, he will, when they commence bearing, furnish the owner with one of his Vine-dressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, APPLE-QUINCE TREES, (which are sometimes called Orange Quince,) for sale as above.

Also for sale at his Wine and Grape Depot, No. 293 Broadway, New-York, by the case, in bottles.

PURE ISABELLA AND CATAWBA WINE,
Made by competent persons, under his own inspection, at Croton Point, from perfectly ripe grapes, suitable for medicinal, sacramental, and all other purposes where a pure wine is desirable.
R. T. UNDERHILL, M. D.

The Hartford Prolific Grape,

(Recommended by the Pomological Convention, as promising well.)

Always ripens a full crop, before frost, on open trellises.

Vines for sale by J. MASON & CO.,
Washington-st. Nursery, Hartford, Conn.

One-year old layers, propagated from original vine, at 50 cts. By the hundred $9 per dozen. Single vines from 75 to 100 cents. A few two-year-old vines at $1 50 each. Small plants, one-year-old, from eyes, 25 to 50 cents each, and $4 per dozen.

GRAPE VINES.—ISABELLA, CATAWba, and Northern Muscadine.—The subscribers being largely engaged in the Grape culture, now offer to the public several thousand Vines, in lots to suit purchasers, of their own raising, with prices according to age and quality. Particular attention paid to the forming of vineyards. Address Depew's Nurseries, Nyack Rockland Co., N. Y. City references, Mr. John W. Town, No. 55 Beekman St., Mr. John H. Stephens, 763 Greenwich St.

GRAPE VINES—3,000 Isabella and Catawba Grape Vines for sale by
SIDNEY E. VAN WYCK,
Fishkill, Dutchess Co., N. Y.

The New Rochelle or Lawton, Lawton or New Rochelle, } Blackberry Plants.
PRICES REDUCED.

The undersigned agents for Messrs. GEO. SEYMOUR & CO., and other nurserymen of position and reputation, offer the above remarkable plants at the following very low range of prices.

One Thousand Plants	$30	Fifty Plants	$
Five Hundred Plants	17	Two Dozen Plants	
One Hundred Plants	10	One Dozen Plants	

☞ Good Plants for setting of a second size, will be sold for $60 per 1,000 Plants, or $10 per 100 Plants.

WARRANTED GENUINE.

Also pamphlet on ORIGEN, HISTORY, characteristics, and culture of the same.
DREW & FRENCH,
Produce Commission Merchants,
65 Barclay Street, New-York.

Lawton Blackberry Plants.

In all cases warranted of the original stock, and raised under the supervision of the subscriber upon his own grounds in New Rochelle and each dozen separately secured in moss for convenience of distribution by Clubs, and packed in boxes.

SCALE OF PRICES BY THE DOZEN.

A box of one dozen $2
" three dozen 5
" eight dozen 10
" eighteen dozen 20
" fifty dozen 50

☞ The name and direction of purchasers should be distinctly written, and the money accompany the order.
Address WILLIAM LAWTON,
15 Wall-st., New-York.

New-Rochelle or Lawton
BLACKBERRY PLANTS.

The Subscriber having 2½ acres of the above plants in cultivation at the St. Louis County Fruit Garden, situated at Eureka Station, P. R. R., is prepared to fill large orders the coming Fall and Spring at the following Eastern prices, packed and delivered at any express office in St. Louis free of charge:

100 plants	$10 00	50 plants	$6 00
25 plants	3 50	12 plants	2 00

The money should accompany the order.
JOHN S. SEYMOUR.
Allenton, St. Louis Co., Mo.

PRUNING SHEARS—Or Garden Snips—See what the Editor of this paper says of them in the January No., (page 27.) Made and sold at wholesale and retail, by
JOHN ROWE & CO., 269 Pearl-st.

Cane Mills and Distilleries.

GENERAL COPPER-SMITH WORK.

Distilleries of all kinds, for making brandy and alcohol from Chinese Syrup. Steam and horse cane mills, syrup pans, skimmers, dippers, syrup gauges and pumps, brewing apparatus, by steam or fire.
JOHN W. REID, 11 Old-slip, N. Y.

Agricultural Implements

of all kinds, for sale by J. B. RYAN, Importer of Hardware 14 Yonge-st., Toronto, Canada West.
Manufacturers of above goods will send their lists.

Every Family should use

HOUCHIN'S STARCH POLISH.

Houchin's Starch Polish Wafers.

It gives to linen a superior lustre and finish, and an extra stiffness. It will prevent the iron sticking. Shirts, Bosoms Collars, &c., can be done up quicker and will look better, and in damp weather will keep clean longer by using this Polish.

PRICE—12c. 25c. 50c. and $1.00 per Package.

J. B. MORRILL,
Agent, wholesale and retail.
304 Broadway, New-York City. Box 2736 P. O., N. Y.

Farmers,

KNOWLEDGE IS POWER!

LABOR COSTS MONEY.
SAVE YOUR MONEY.
MAKE MACHINERY DO YOUR WORK

One man with mind will do more work with horse and machine than ten by hand labor, and do it better, increasing your crops fifty per cent, and save the price of the machines in two day's work.

The latest labor saving machines are:

Share's Patent Covering and Hoeing Machines.....$10 00
" Cultivator and Hilling Machine..... 10 00
" Coulter, Harrow and Grain Covering do... 15 00

and are only second to the plow. Where they are used farmers will not be without them upon any consideration and our advice to the farmers of the country is to buy these machines as soon as possible. Where five or more club together and order these machines we will make a discount of $1 each on the Harrow and Grain Covering Machine, and 50 cents each the other machines. Send for a Circular to

PEASE & EGGLESTON,
Only Manufacturers, Albany, N. Y.

Responsible Agents wanted.

New-York Agricultural Warehouse and Seed Store.

R. L. ALLEN, No. 191 Water-street,

Invites the attention of farmers and dealers to his very large and complete assortment of most approved and reliable Agricultural and Horticultural Implements. FIELD, GARDEN, and FLOWER SEEDS and FERTILIZERS—which are offered for sale at very low prices—customers may rely upon having articles made in the best and most durable manner, and which shall prove as represented.

I am making several new and superior patterns of STEEL and CAST IRON PLOWS; also Sub-soil, Side-hill, Double-mold, and PLOWS for all kinds of work. Harrows, Cultivators, Seed Drills, Carts, Wagons, Wheel Barrows, Garden and Field Rollers, Garden Engines, Pumps, Garden Tools of every variety.

Also—Horse Powers and Threshing Machines, Saw Mills, Water Rams, Grain Mills, Hay and Stalk Cutters, Corn Shellers, Weather Vanes, Allen's celebrated Mower and Mower and Reaper, &c.

Farmers! Read, Read, Read,

THIS GLORIOUS NEWS.

Mr. G. Pierpont, of Rockford, Ill., purchased one of SHARE'S COULTER HARROW PULVERIZER and GRAIN COVERER, with which he covered 90 acres of wheat on his farm (by merely going over the field once after it was sown.) He also covered or harrowed in 15 acres with the common or Scotch harrow (and worked over 2 or 3 times) on the same farm, to convince himself of the difference between the two machines. The yield, after harvesting the grain, was on an average 3 bushels more per acre from the land on which he used Share's Harrow than that on which he worked the common harrow, thereby saving, (by pulverising with our harrow instead of scratching the top of the land and packing it with the Scotch machine,) say 270 bushels of wheat, which, at the present price of $1 40 per bushel, is $378, or the price of 25 machines. Will not this induce farmers to purchase this new and improved implement which will make their labor easy and cheap. They are manufactured only by the subscribers, to whom, if orders are sent, they will be promptly attended to, and sooner the better, as the demand for them is constantly increasing. The weight of the machine is 200 lbs. Price $15 and freight. Address for a catalogue,

PEASE & EGGLESTON, Albany, N. Y.

Agricultural Implements, &c.

The largest, best and most complete assortment of Agricultural and Horticultural Implements, Seeds, Fertilizers, &c., ever offered for sale in the U. S. can be found at the

New Agricultural Implement and Seed Warehouse,
No. 54 Vesey-st., N. Y., near Washington Market.
A. F. MAYHER & CO., Proprietors.

CHINESE SUGAR CANE AND AFRICAN IMPHEE, at very low price.
R. L. ALLEN, 191 Water St., N. Y.

☞ Caution—Take Notice.

Whereas L. L. Langstroth's agents are very much troubled and annoyed on account of bee-keepers preferring to purchase and use my "Sectional Frame Hive," patented Nov. 9, 1858, and other improved Hives, to theirs, and in order to frighten and deter others from doing so, have cautioned the public against purchasing "Movable Comb Hives, as they believe such to be infringements on their rights.

For the benefit of all concerned, I will state that I neither make, sell or offer for sale any improvement of which Mr. Langstroth is the original inventor, or rightful owner, having no occasion to do so, as I have a much more convenient—cheap and practical arrangement, requiring much less exposure to the bees, and less disturbance to them, and affording decidedly the best facilities for obtaining nice surplus honey of any yet devised. Together with a late improvement—for which I have taken measures to secure a patent) by means of which the bees must construct all their combs straight on the frames, a thing there is no certainty of their doing in their hive, or any other movable comb Hive. Therefore don't be frightened bee-keepers but send a one cent stamp and get a circular and examine for yourselves. Address

E. W. PHELPS,
Elizabeth, N. J. } Patentee.

SHORT HORN HERD AT AUCTION.

Having sold my farm at Chestnut Ridge, Dutchess County, N. Y., I will offer for sale at auction, my entire Herd of SHORT HORNED CATTLE, consisting of about thirty-five head of superior animals. Among them will be the unrivalled Bull, HIGHFLYER, 5758; also, stock sired by him, as well as the EARL OF WARWICK, 465. The sale will take place at Dover Plains, on the New-York and Harlem Rail Road, on the 10th day of May next, at 12 o'clock.

Catalogues of Pedigrees may be had at the offices of the *American Agriculturist*, New-York; *Country Gentleman*, Albany; *Ohio Farmer*, Cleveland; *Boston Cultivator*, and of the subscriber.

SAMUEL T. TABER
Mineola, Queens Co., N. Y.

P. S.—No animals will be disposed of before the sale at auction.

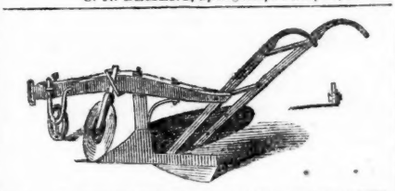
Thorough Bred Stock.

I have always on hand for sale, which will be put upon the railroad cars and sent carefully by Adams' Express to purchasers, SHORT-HORN CATTLE, SOUTH-DOWN SHEEP, and SPANISH HOGS. C. M. CLAY.
Address—"Whitehall Post Office," Madison County, Ky.

THOROUGHBRED NORTH DEVONS.
Four Females, with Herd Book pedigrees. Two Thoroughbred Ayrshire Bull Calves. For sale. Address Alfred M. Tredwell, No. 251 Pearl street, New York.

Hamburg Fowls.

A few choice specimens of the golden-spangled Hamburg Fowls for sale. Price $8 per trio. Apply to
C. N. BEMENT, Springside, Po'keepsie, N. Y



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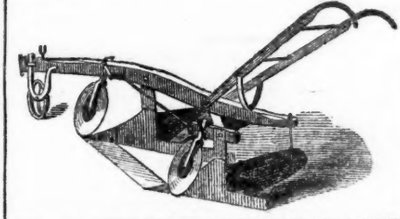

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American Agriculturist, Dec. 1858.

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1. *Close of Distribution.*—The general distribution of seeds to all subscribers applying, *will close with the month of March*—except to those distant subscribers whose letters require 12 to 15 days or more to reach this office. Old and new subscribers, who have not already done so, should therefore forward their application for seeds at once.

2. *Delays—Mail Packages.*—Owing to the blundering of inefficient Custom House employes (many of them low politicians, getting the reward for 'election services') one of our large casks of foreign seeds was from Jan. 22 to Feb. 14 in getting through the N. Y. Custom House. Still, by extra exertion and expense, we have at this date (Feb. 23) dispatched most seeds for applied for, *to go by mail*, and by March 1st every envelop, sent in prior to that date, will have been sent off. Envelopes received afterwards, will be mailed soon after their arrival.

3. *Express Parcels.*—Few of the packages of seeds to go by express have yet been sent off. But all express parcels previously applied for, will be started before March 12. Applications coming after that date (March 12) will be sent out about as fast as received.

4. *Assortment still good.*—We have still a supply of all seeds offered in the General List (see this No. page 90) —except Canary Bird Flower (No. 81), which we can not furnish at present, if at all. However, as some varieties will run out soon, applicants for seeds hereafter will please add on the *lower left hand corner of their envelopes*, or on express lists, a *second* list of two or three varieties, for us to select from, if any of the first list runs out.

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